SERVICE MANUAL

COLOR TELEVISION

AV-30W475/S, AV-30W475/Y

BASIC CHASSIS
GW



TABLE OF CONTENTS

No.YA095
2004/7

SPECIFICATION

Items		Contents
Dimensions (W × H × D)		83.8cm × 59.6cm × 55.4cm (33-1/8" × 23-1/2" × 21-7/8")
Mass		52.2kg (115.1lbs)
TV RF System		CCIR (M)
Color System		NTSC
Sound System		BTSC (Multi Channel Sound)
Teletext System		Closed caption (T1-T4 / CC1-CC4)
TV Receiving Channels and Frequency	VHF low VHF high UHF CATV	02ch to 06ch : 54MHz to 88MHz 07ch to 13ch : 174MHz to 216MHz 14ch to 69ch : 470MHz to 806MHz 54MHz to 804MHz Low Band : 02 to 06, A-8 by 02 to 06 & 01 High Band : 07 to 13 by 07 to 13 Mid Band : A to I by 14 to 22 Super Band : J to W by 23 to 36 Hyper Band : W+1 to W+28 by 37 to 64 Ultra Band : W+29 to W+84 by 65 to 125 Sub Mid Band : A8, A4 to A1 by 01, 96 to 99
TV / CATV Total Channel		181 Channels
Intermediate Frequency	Video IF Sound IF	45.75 MHz 41.25 MHz (4.5MHz)
Color Sub Carrier		3.58 MHz
Power Input		AC120V, 60Hz
Power Consumption		140W
Picture Tube (Visible size)		76cm (30”) Measured diagonally (H: 67.4cm × V: 38.4cm)
High Voltage		31.3kV ±1.3kV [at Zero beam current]
Speaker		6.5cm × 13cm (2-1/2" × 5"), Oval type × 2
Audio Power Output		9W + 9W
Antenna Terminal (VHF / UHF)		F-type connector, 75 Ω unbalanced
Video / Audio input [INPUT-1/2/3]	Component Video [Input-2] S-video [Input-1] Video Audio	RCA pin jack × 3 Y : 1V(p-p), negative sync, 75 Ω Pb/Pr : 0.7V(p-p), 75 Ω Mini DIN 4-pin × 1 Y : 1V(p-p), negative sync, 75 Ω C : 0.286V(p-p)(burst signal), 75 Ω 1V(p-p), negative sync, 75 Ω, RCA pin jack × 3 500mV(rms)(-4dBs), high impedance, RCA pin jack × 6
Audio Output (Fix)		500mV(rms)(-4dBs), low Impedance, (400kHz when modulated 100%), RCA pin jack × 2
Remote Control Unit		RM-C1258G (AA/R6/UM-3 battery × 2)

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTION

1.1 SAFETY PRECAUTIONS

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual**. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Use isolation transformer when hot chassis.**
The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.

(5) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⊜) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.

(6) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 POWER SUPPLY check).

(7) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

(8) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

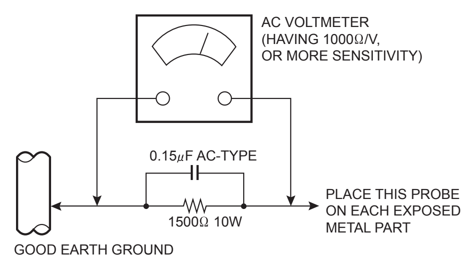
(9) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(10) **Isolation Check (Safety for Electrical Shock Hazard)**
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.) This method of test requires a test equipment not generally found in the service trade.

b) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000Ω per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15µF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).

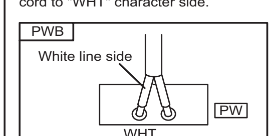


(11) **High voltage hold down circuit check.**
After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.See item **"How to check the high voltage hold down circuit"**.

This mark shows a fast operating fuse, the letters indicated below show the rating.



POWER CORD REPLACEMENT WARNING.
Connecting the white line side of power cord to "WHT" character side.



SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

SMART CAPTION
Smart caption will appear when you press the MUTING button, only on channels where the broadcast contains CLOSED CAPTION information.

SMART SOUND
Decreases high sound levels, giving a regulated sound level.

FLAT SQUARE CRT
It became legible from any position by CRT with few reflection and reflect lumps on the flat screen.

DIGITAL COMB FILTER
By the 3 line digital comb filter, the refreshed image can be seen.

VIDEO STATUS
Expression of a favorite screen can be chosen by the VIDEO STATUS function.
[STANDARD ↔ DYNAMIC ↔ THEATER ↔ GAME]

COMPONENT INPUT
Since the component signal input terminal is equipped, it reappears direct without deteriorating the signal from DVD.

V-CHIP
Since the V-CHIP is built in, it can choose, view and listen to a healthy program.

MTS STEREO
The voice multiplex function of the MTS system is built in. (MTS = Multi channel Television Sound system)

RETURN PLUS
You program a specific channel to return to while scanning through the channels using the CH+ and CH - keys.

VIDEO INPUT LABEL
This function is used to label video input connections for the onscreen displays.

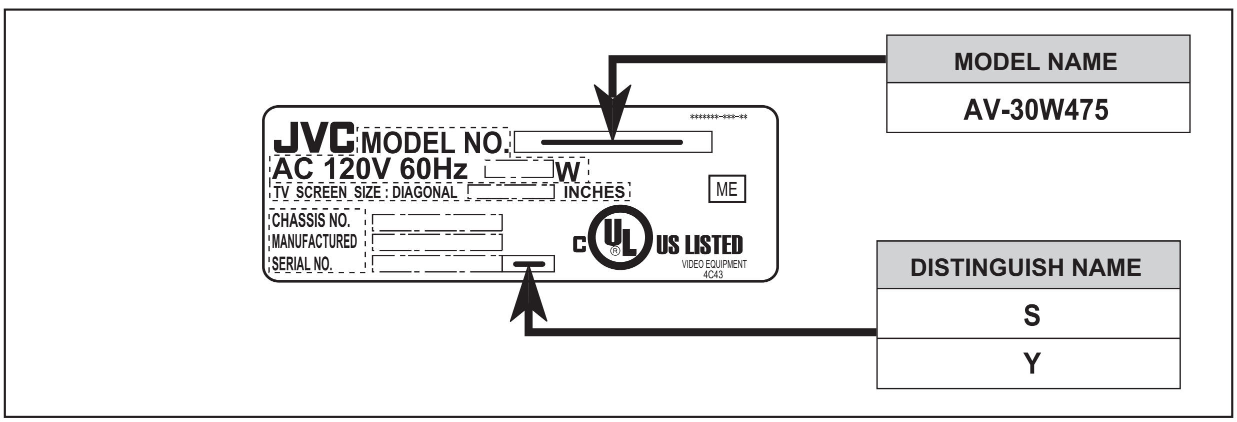
WORLD CLOCK
The world clock feature provides time differences for some of the major cities around the world in real time.

BBE
High definition audio adds natural, clear and extraordinary sound quality to any program.

A.H.S.
Adds a more spacious surround sound. Music gives basic effect and Movie for more effect.

2.2 HOW TO IDENTIFY MODELS

How to recognize from the appearance of the model concerned is written below. Please distinguish from several contents currently printed on the rating label



2.3 MAIN DIFFERENCE LIST

The difference between S models and Y models are in the PICTURE TUBE.

Item	AV-30W475/S	AV-30W475/Y
PICTURE TUBE (ITC)	W76QEN693X002	CHXJIM00032

2.4 TECHNICAL INFORMATION

2.4.1 MAIN MI-COM (CPU) PIN FUNCTION

Pin No.	Pin name	I/O	Function	Pin No.	Pin name	I/O	Function
1	MTS_ADJ	I	Not used	29	YC_GND	-	GND
2	AFT1	I	AFT voltage for tuner (Tuning frequency control)	30	V1_IN	I	Not used
3	KEY	I	Key scan for front control [No signal : H]	31	ABCL	I	Current for automatic beam (brightness)/contrast limit
4	uP_DVss	-	GND	32	MONITOR_OUT	O	Not used
5	Reset	I	CPU reset [Reset : L]	33	BLACK_DET	-	Black level detection filter
6	8MHz_OUT	O	CPU system clock : 8MHz oscillation	34	SVM_OUT	O	Y signal for scan velocity modulation
7	8MHz_IN	I	CPU system clock : 8MHz oscillation	35	APL_FIL	-	Average picture level filter
8	TEST	-	GND	36	APC_FIL	-	Automatic phase control filter
9	uP_DVDD	I	5V	37	fsc_OUT	O	Color sub carrier (3.58MHz) for 3-line digital comb filter [IC5201]
10	AGC_MUTE	O	AGC muting for tuner (when channel select) [Muting : H]	38	YC_Vcc	I	5V (for video process circuit)
11	uP_VVSS	-	GND	39	R_OUT	O	R signal for CRT output
12	TV_HGND	-	GND	40	G_OUT	O	G signal for CRT output
13	FBP_SCP	I	Flyback pulse (H. pulse)	41	B_OUT	O	B signal for CRT output
14	HOUT	O	H. drive (oscillation)	42	RGB_Vcc	I	9V (for RGB process circuit)
15	H_Vcc	I	9V (for H. oscillation start)	43	IK_IN	I	Not used
16	HAFC_1	-	H. AFC filter	44	TV_DGND	-	GND
17	Vsaw	-	V. saw filter	45	uP_AGND	-	GND
18	VOUT	O	V. drive	46	uP_AVdd	-	5V
19	EW_OUT	O	Parabola waveform (for sidepin correection)	47	MAIN_POWER	O	Power on/off switching control [Powen on : L]
20	X-RAY	I	X-ray detection (for protection) [Detection : H]	48	PANORAMA	I	Aspect size control [PANORAMA : L]
21	Ys	I	Not used	49	SDA0	I/O	Data for Inter IC control bus (for various devices)
22	Cb_IN	I	Cb (external) signal	50	SCL0	O	Clock for Inter IC control bus (for various devices)
23	Y_IN	I	Y (external) signal	51	SDA1	I/O	Data for Inter IC control bus (for main memory)
24	Cr_IN	I	Cr (external) signal	52	A_MUTING	O	Audio muting [Muting : H]
25	TV_DVcc	I	3.3V	53	SCL1	O	Clock for Inter IC control bus (for main memory)
26	V3IN/CIN	I	Chroma signal (for YC separation output)	54	LED	O	POWER / ON TIMER LED Indication [lighting : L]
27	EHT_IN	I	Not used	55	REMOCON	I	Remote control sensor input [No input : H]
28	V2_IN/Y_IN	I	Y signal (for YC separation output)	56	ASP_ABL	I	Not used

SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE REAR COVER

(1) Disconnect the power plug.
(2) Remove the 10 screws **[A]**.
(3) Withdraw the REAR COVER backward.

3.1.2 REMOVING THE AV TERMINAL BOARD

- Remove the REAR COVER.

(1) Remove the 4 screws **[B]**.
(2) Withdraw the AV TERMINAL BOARD toward you.

3.1.3 REMOVING THE CHASSIS

- Remove the REAR COVER.
- Remove the AV TERMINAL BOARD.

(1) Slightly raise the both sides of CHASSIS by hand.
(2) Remove the 2 claws under the both side of the CHASSIS from the front cabinet.
(3) Withdraw the CHASSIS backward.
(If necessary, remove the wire clamp, connectors etc.)

3.1.4 REMOVING THE SPEAKER

- Remove the REAR COVER.

(1) Remove the 2 screws **[C]** and remove the SPEAKER.
(2) Follow the same steps when removing the other hand SPEAKER.

3.1.5 REMOVING THE FRONT CONTROL PWB

- Remove the REAR COVER.

(1) Remove the 2 screws **[D]**.
(2) Withdraw the FRONT CONTROL PWB toward you.

*If necessary, remove the wire clamp, connector etc.

3.1.6 REMOVING THE SIDE CONTROL PWB

- Remove the REAR COVER.

(1) Remove the 1 screw **[E]** and remove the CONTROL BASE.
(2) Remove the 2 screws **[F]** and remove the SIDE CONTROL PWB.

*If necessary, remove the wire clamp, connector etc.

3.1.7 CHECKING THE CHASSIS

To check the PW Board from back side.

(1) Pull out the CHASSIS (refer to REMOVING THE CHASSIS).
(2) Erect the CHASSIS vertically with the rear side facing up so that you can easily check the back side of the PW board.

CAUTION :

- When erecting the CHASSIS, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- **When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PWB.**

3.1.8 WIRE CLAMPING AND CABLE TYING

(1) Be sure to clamp the wire.
(2) Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

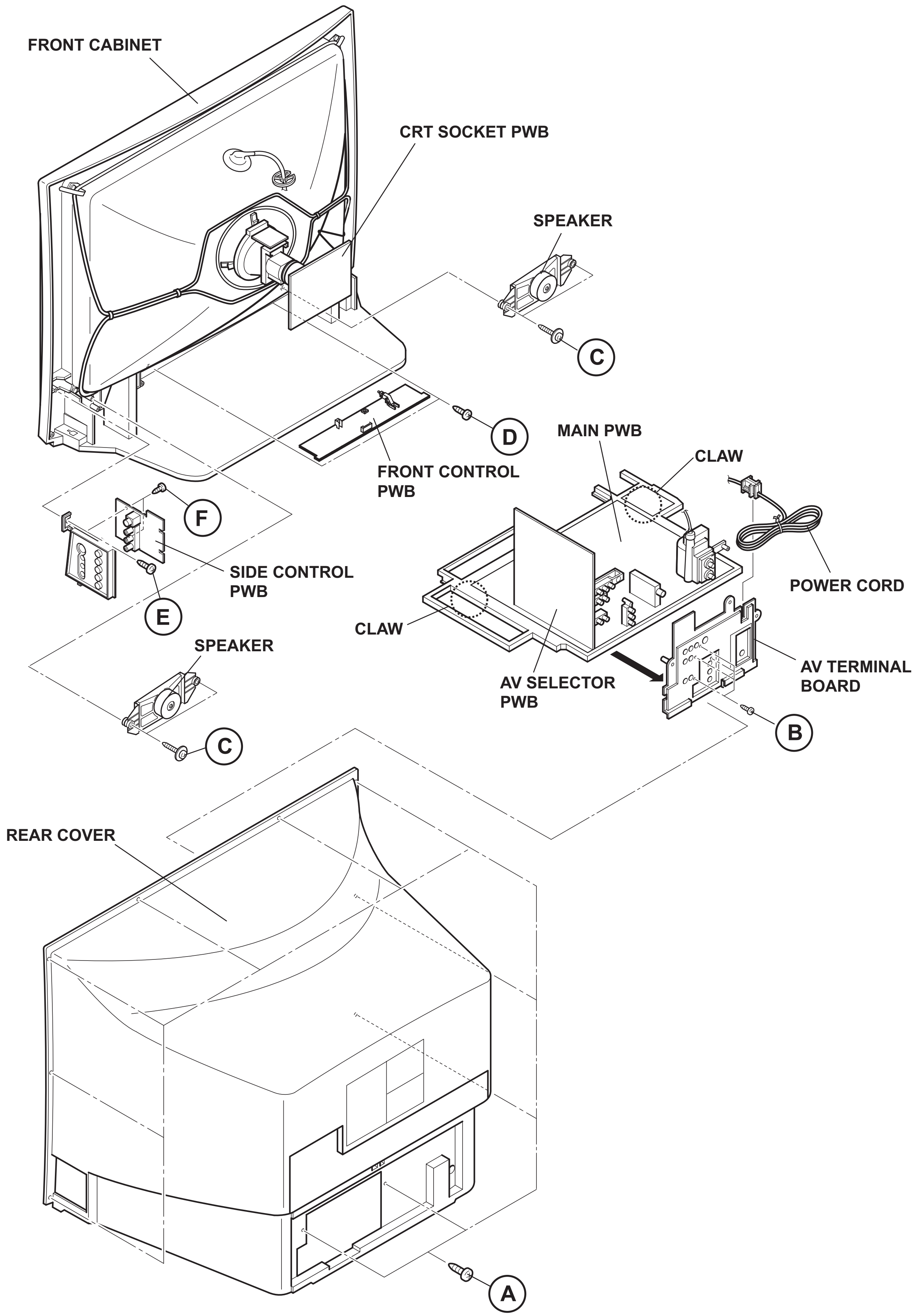

FRONT CABINET
CRT SOCKET PWB
SPEAKER
C
D
MAIN PWB
CLAW
FRONT CONTROL
PWB
F
SIDE CONTROL
PWB
POWER CORD
E
CLAW
SPEAKER
AV TERMINAL
BOARD
AV SELECTOR
PWB
B
C
REAR COVER
A

Fig.1

3.1.9 REMOVING THE CRT

NOTE:

- Replacement of the CRT should be performed by 2 or more persons.
- After removing the REAR COVER, CHASSIS etc.,

(1) Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig. 3).

(2) While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig. 3.

(3) Remove 4 screws marked by arrows with a box type screwdriver as shown in Fig. 4.

NOTE:

Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.

(4) After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front
surface of the cabinet) shown in Fig. 5.

NOTE:

- The CRT should be assembled according to the opposite sequence of its dismounting steps.
- The CRT change table should preferably be smaller that the CRT surface, and its height be about 35cm.

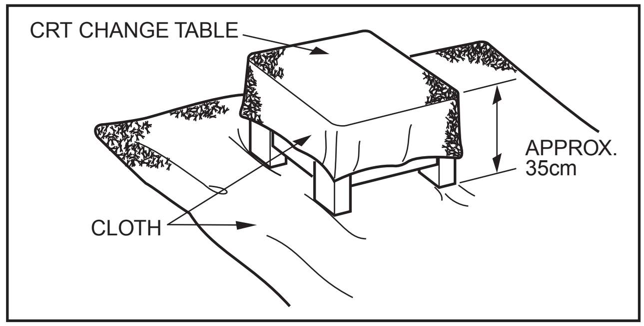


Fig.3

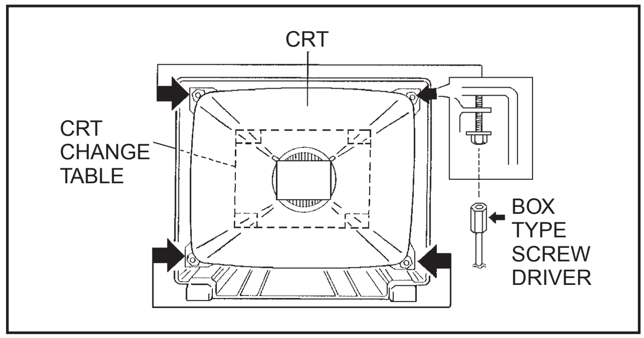


Fig.4

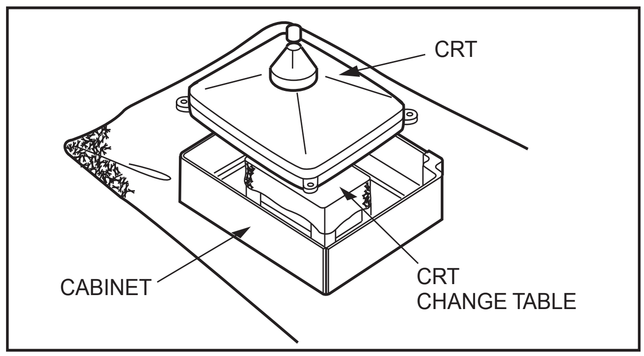


Fig.5

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismounting them, be sure to coat silicon grease for electrical insulation as shown in Fig.6.Wipe around the anode button with clean and dry cloth. (Fig.6)Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not sticks to the anode button. (Fig.7)

Silicon grease product No. KS - 650N

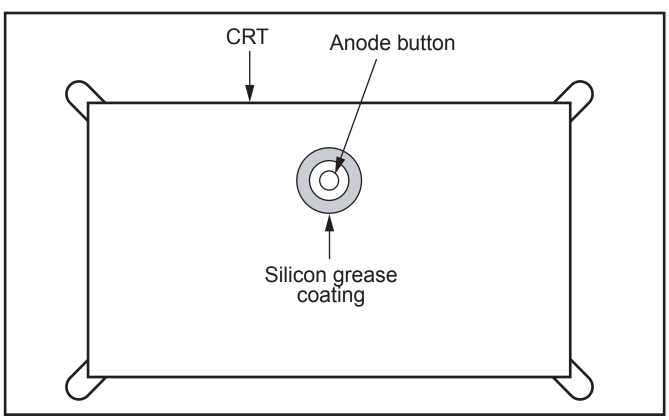


Fig.6

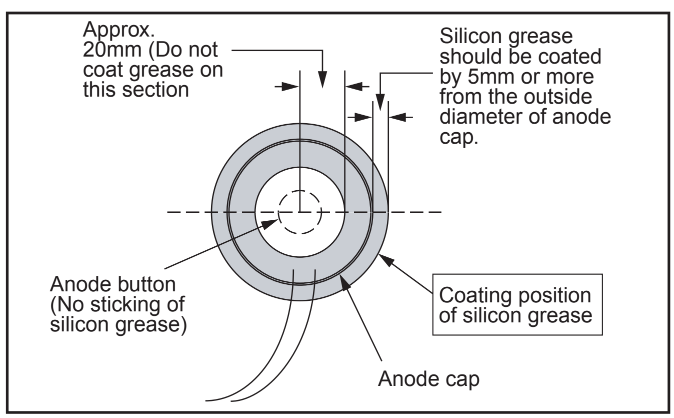


Fig.7

3.2 MEMORY IC REPLACEMENT

- This model uses the memory IC.
- This memory IC stores data for proper operation of the video and drive circuits.
- When replacing, be sure to use an IC containing this (initial value) data.

3.2.1 MEMORY IC REPLACEMENT PROCEDURE

1. Power off
Switch off the power and disconnect the power plug.

2. Replace the memory IC
Be sure to use a memory IC written with the initial setting data.

3. Power on
Connect the power cord to the wall outlet and switch on the power.

4. Receiving channel setting
Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.

5. User settings
Check the user setting items according to the "FACTORY SETTING ITEM" table.
Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.

6. SERVICE MODE setting
Verify what to set in the SERVICE MODE, and set whatever is necessary(Fig.1) .
Refer to the SERVICE ADJUSTMENT for setting.

3.2.2 SERVICE MODE SETTING ITEMS

SERVICE MENU

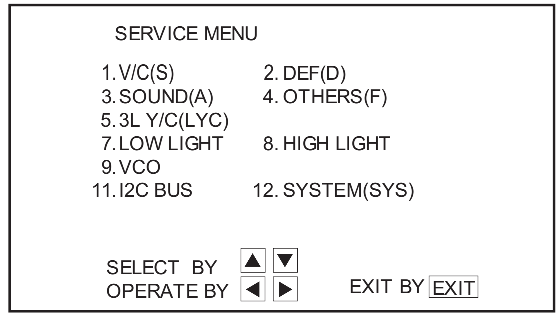


Fig.1

Setting items	Settings	Item No.
1. V/C(S) (Video setting)	Adjust	S01~S48
2. DEF(D) (Deflection setting)	Adjust	D01~D33
3. SOUND(A) (Audio setting)	Adjust	A01~A08
4. OTHERS [Do not adjust] (Factory setting)	Fixed	F01~F18
5. 3L Y/C(LYC) [Do not adjust] (Y/C Separate setting)	Fixed	LYC01~LYC12
7. LOW LIGHT (White balance setting)	Adjust	---
8. HIGH LIGHT (White balance setting)	Adjust	---
9. VCO (VCO setting)	Adjust	---
11. I2C BUS [Do not adjust] (I^2C BUS setting)	Fixed	---
12.SYSTEM (SYS) (System constant setting)	Fixed	SYS01~SYS26

3.2.3 SETTINGS OF FACTORY SHIPMENT

3.2.3.1 BUTTON OPERATION

Setting item	Setting position
POWER	Off
CHANNEL	CH-02
VOLUME	10

3.2.3.2 REMOTE CONTROL DIRECT OPERATION

Setting item		Setting position
INPUT		TV
CHANNEL		CH-02
VOLUME		10
MUTING		OFF
DISPLAY		OFF
SLEEP TIMER		OFF
THEATER PRO		OFF
VIDEO STATUS		DYNAMIC
ASPECT		REGULAR
SOUND	A.H.S	OFF
	BBE	ON

3.2.3.3 REMOTE CONTROL MENU OPERATION

(1) PICTURE ADJUST

Setting item	Setting position
TINT	0
COLOR	0
PICTURE	+8
BRIGHT	0
DETAIL	+8
COLOR TEMPERATURE	HIGH
NOISE MUTING	ON
VSM	ON

(2) SOUND ADJUST

Setting item	Setting position
BASS	Center
TREBLE	Center
BALANCE	Center
MTS	STEREO
SMART SOUND	OFF

(3) CLOCK / TIMERS

Setting item	Setting position
SET CLOCK	OFF
ON / OFF TIMER	OFF
WORLD CLOCK	Refer to OPERATING INSTRUCTIONS

(4) INITIAL SETUP

Setting item	Setting position
LANGUAGE	ENG.
CLOSED CAPTION	OFF (CC1 / T1)
FRONT PANEL LOCK	OFF
AUTO SHUT OFF	OFF
XDS ID	ON
VIDEO INPUT LEVEL	ON
AUTO TUNER SETUP	CABLE
CHANNEL SUMMARY	Refer to OPERATING INSTRUCTIONS
V-CHIP	OFF
TILT CORRECTION	Center

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

(1) Avoid heating for more than 3 seconds.
(2) Do not rub the electrodes and the resist parts of the pattern.
(3) When removing a chip part, melt the solder adequately.
(4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

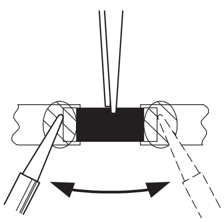
(1) Use a high insulation soldering iron with a thin pointed end of it.
(2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

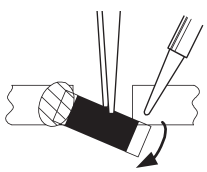
1. How to remove Chip parts

[Resistors, capacitors, etc.]

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

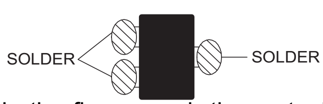


(2) Shift with the tweezers and remove the chip part.

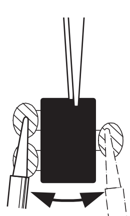


[Transistors, diodes, variable resistors, etc.]

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

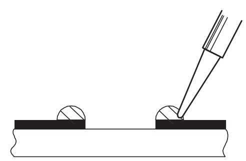


NOTE :
After removing the part, remove remaining solder from the pattern.

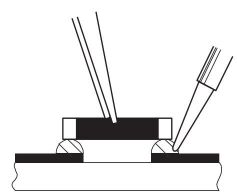
2. How to install Chip parts

[Resistors, capacitors, etc.]

(1) Apply solder to the pattern as indicated in the figure.

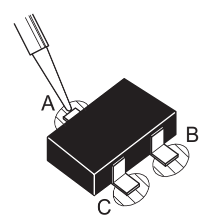


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

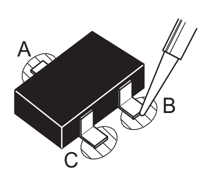


[Transistors, diodes, variable resistors, etc.]

(1) Apply solder to the pattern as indicated in the figure.
(2) Grasp the chip part with tweezers and place it on the solder.
(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



SECTION 4
ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

(1) **There are 2 ways of adjusting this TV : One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
(2) **The adjustment using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
(3) Make sure that connection is correctly made AC to AC power source.
(4) Turn on the power of the TV and measuring instruments for warming up for at least 30 minutes before starting adjustments.
(5) If the receive or input signal is not specified, use the most appropriate signal for adjustment.
(6) Never touch the parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

4.2 PRESET SETTING BEFORE ADJUSTMENTS

Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT.

Item	Preset value
VIDEO STATUS	STANDARD
TINT / COLOR / PICTURE / BRIGHT / DETAIL	0
COLOR TEMPERATURE	LOW
VSM	OFF
BASS / TREBLE / BALANCE	0
MTS	STEREO
BBE	OFF
A.H.S	OFF
ASPECT	FULL

4.3 MEASURING INSTRUMENT AND FIXTURES

- DC voltmeter (or digital voltmeter)
- Oscilloscope
- Signal generator (Pattern generator) [NTSC]
- TV audio multiplex signal generator
- Remote control unit

4.4 ADJUSTMENT ITEMS

■CHECK ITEM
- B1 VOLTAGE check
- HIGH VOLTAGE HOLD DOWN check

■TUNER / IF CIRCUIT
- IF VCO adjustment

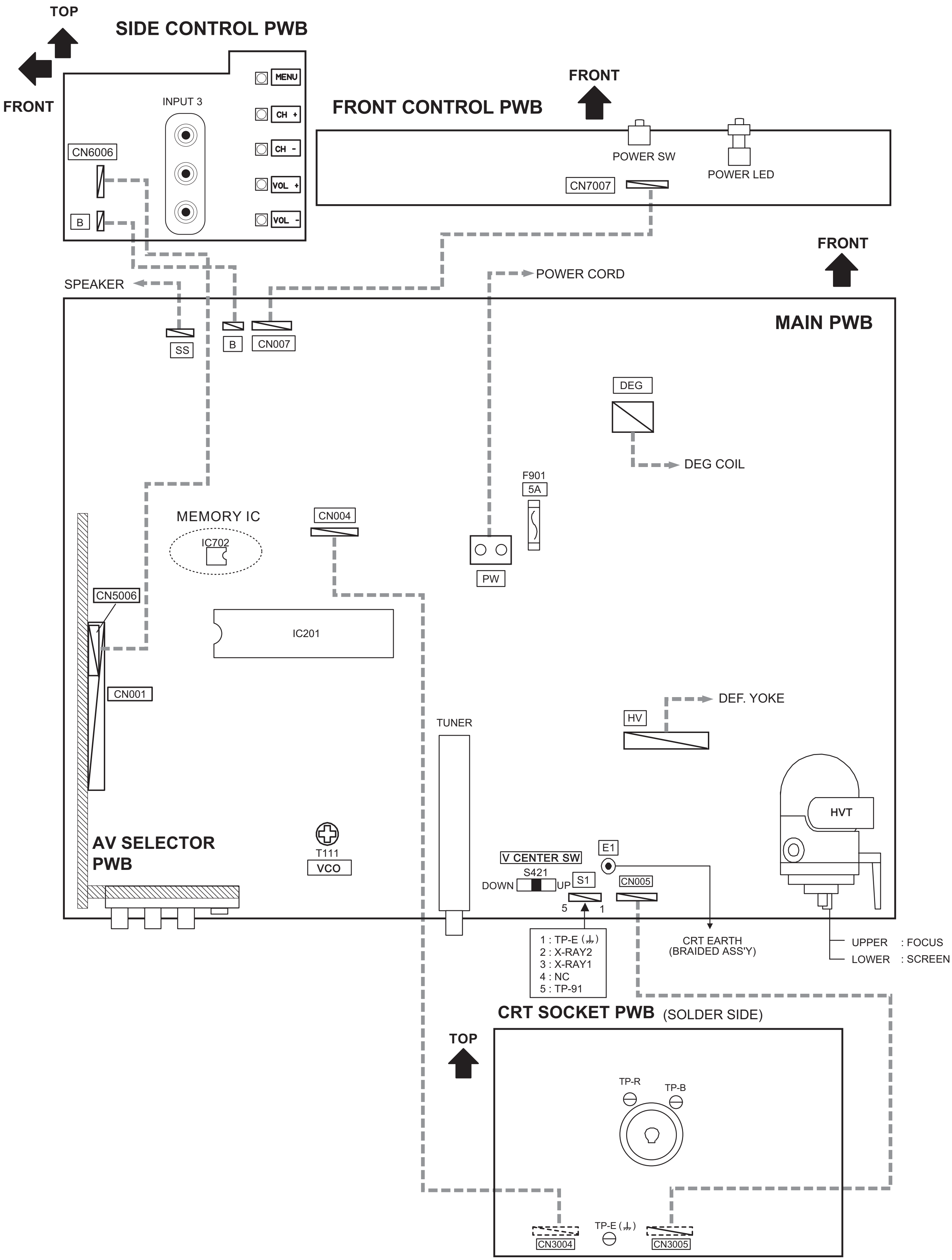
■FOCUS
- FOCUS adjustment

■DEFLECTION CIRCUIT
- V. SIZE / V. POSITION adjustment
- H. POSITION / H. SIZE / SIDE PIN adjustment

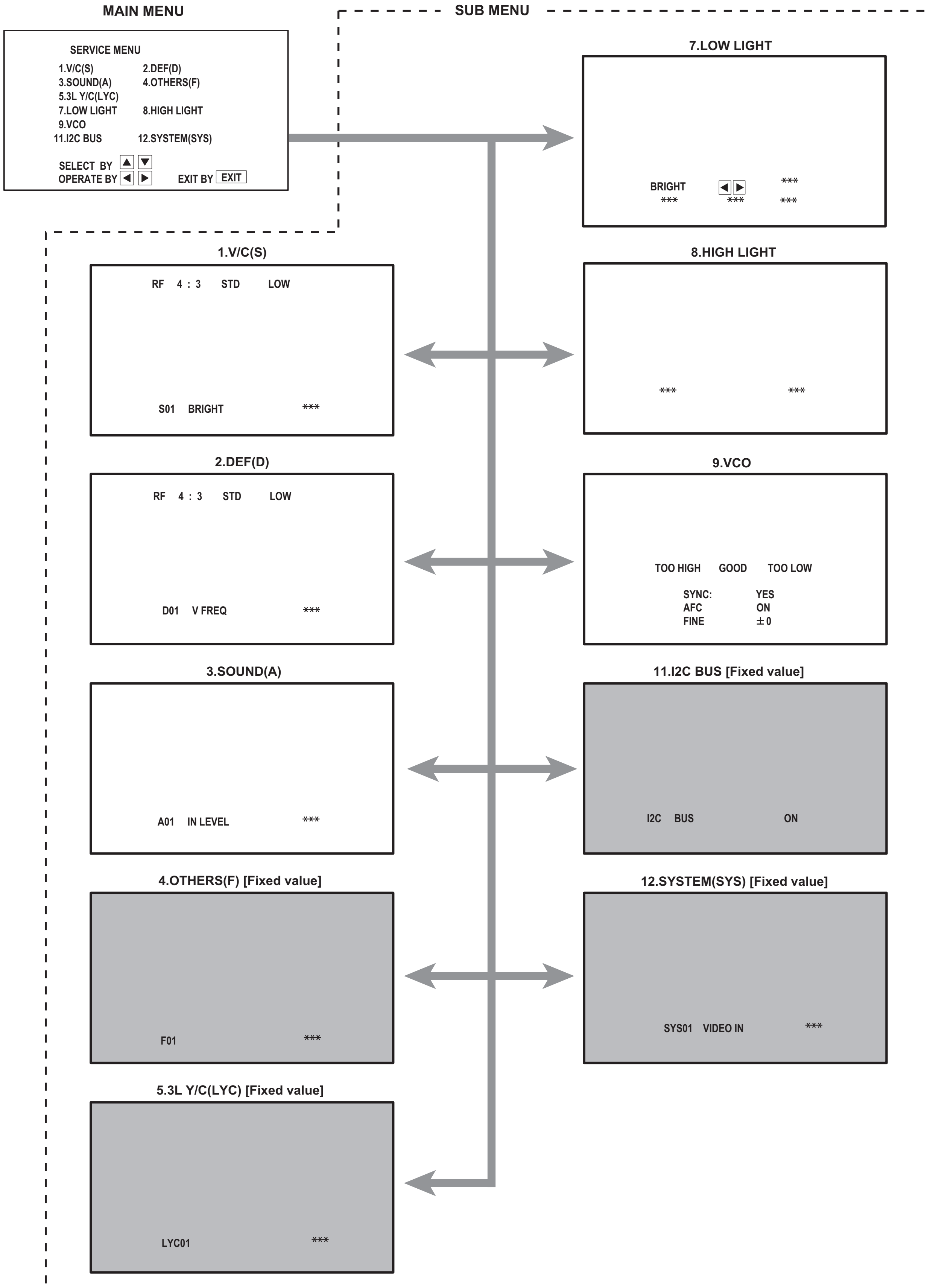
■VIDEO CIRCUIT
- WHITE BALANCE (LOW LIGHT) adjustment
- WHITE BALANCE (HIGH LIGHT) adjustment
- SUB BRIGHT adjustment
- SUB CONTRAST adjustment

■MTS CIRCUIT
- MTS INPUT LEVEL adjustment
- MTS SEPARATION adjustment

4.5 ADJUSTMENT LOCATIONS



4.6 BASIC OPERATION OF SERVICE MODE



4.6.1 TOOL OF SERVICE MODE OPERATION
Operate the SERVICE MODE with the REMOTE CONTROL UNIT.

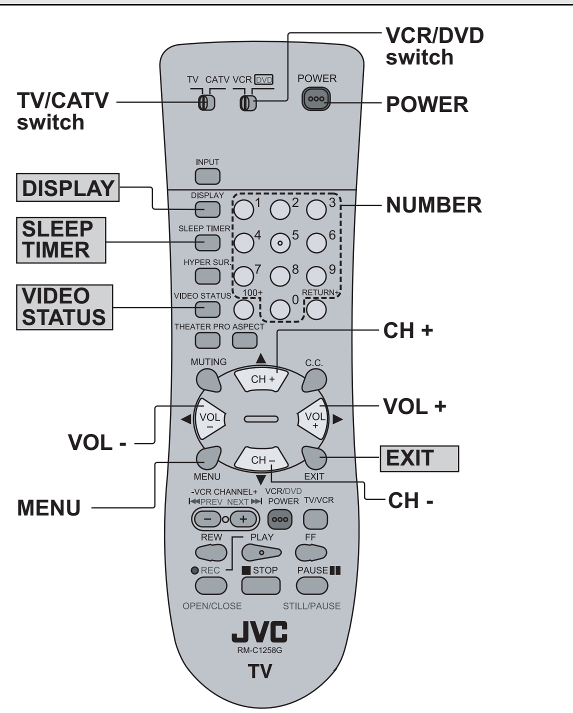
4.6.2 SERVICE MODE ITEMS
In general, basic setting (adjustments) items or verifications are performed in the SERVICE MODE.

1. V/C (S)	This sets the setting values of the VIDEO circuit.
2. DEF (D)	This sets the setting values of the DEFLECTION circuit.
3. SOUND (A)	This sets the setting values of the AUDIO circuit.
4. OTHERS (F)	This sets the setting values of the factory settings. **[Do not adjust]**
6. 3L Y/C(LYC)	This sets the setting values of the 3 line YC separation control circuit. **[Do not adjust]**
7. LOW LIGHT	This sets the setting values of the WHITE BALANCE (LOW LIGHT) control circuit.
8. HIGH LIGHT	This sets the setting values of the WHITE BALANCE (HIGH LIGHT) control circuit.
9. VCO	This sets the setting values of the VCO control circuit.
11. I2C BUS	This sets the setting values of the I^2C BUS control circuit. **[Do not adjust]**
12. SYSTEM(SYS)	This sets the setting values of the system control circuit. **[Do not adjust]**

4.6.3 HOW TO ENTER THE SERVICE MODE
(1) Set to 0 minutes using the [SLEEP TIMER] key.
(2) Press the [VIDEO STATUS] key and [DISPLAY] key simultaneously, then enter the SERVICE MODE.

NOTE:
Before entering the SERVICE MODE, confirm that the setting of TV / CATV switch of the REMOTE CONTROL UNIT is at the "TV" side and the setting of VCR / DVD switch is at the "VCR" side. If the switches have not been properly set, you cannot enter the SERVICE MODE.

SERVICE MODE SELECT KEY



4.6.4 HOW TO STORE OF SETTING VALUE
The setting value will be stored automatically when release the REMOTE CONTROL UNIT keys

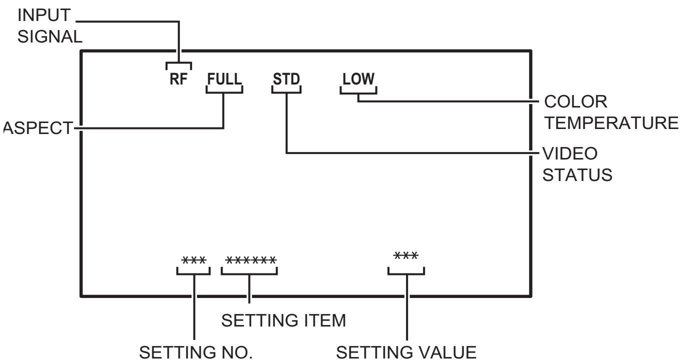
4.6.5 HOW TO EXIT THE SERVICE MODE
Press the [EXIT] key to exit the SERVICE MODE.

4.6.6 SERVICE MODE SETTING

1. V/C, 2. DEF

- Press [CH+] / [CH-] key
  For scrolling up/down the adjustment item.
- Press [VOL+] / [VOL-] key
  For scrolling up/down the data values.

NOTE:
The setting value will be stored automatically when release the REMOTE CONTROL UNIT keys.



(1) INPUT SIGANL

RF : Antenna input
COMP : External (Component) input
EXT : External (S / Composite) input

(2) ASPECT

FULL : FULL screen mode
REGU : REGULAR screen mode
CINE : CINEMA screen mode
PANO : PANORAMA screen mode

(3) VIDEO STATUS

STD : STANDARD
THEA : THEATER

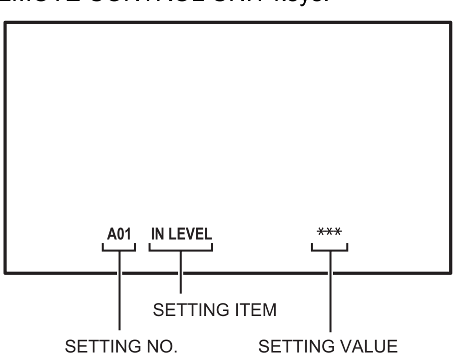
(4) COLOR TEMPERATURE

HIGH : White balance high mode
LOW : White balance low mode

3. SOUND (A)

- Press [CH+] / [CH-] key
  For scrolling up/down the adjustment item.
- Press [VOL+] / [VOL-] key
  For scrolling up/down the data values.

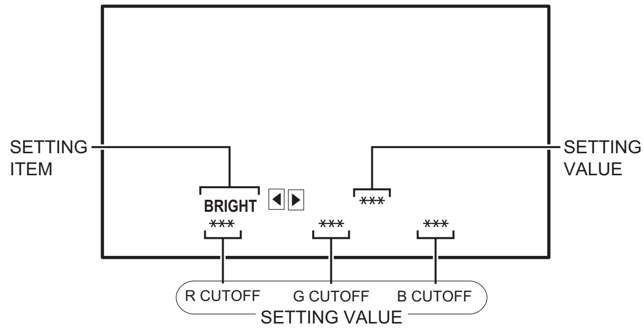
NOTE:
The setting value will be stored automatically when release the REMOTE CONTROL UNIT keys.



7. LOW LIGHT

The setting for the WHITE BALANCE (LOW LIGHT) control circuit.

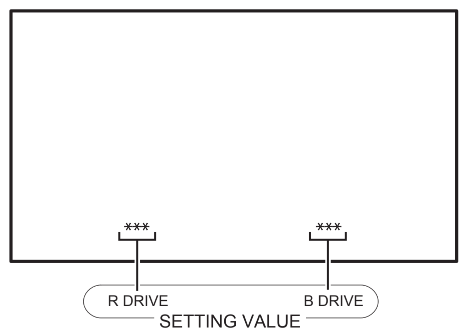
NOTE:
The setting value will be stored automatically when release the REMOTE CONTROL UNIT keys.



8. HIGH LIGHT

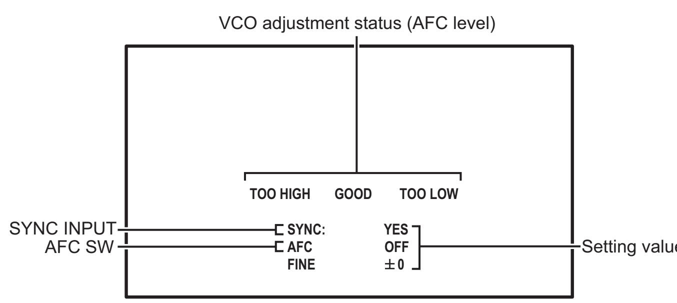
The setting for the WHITE BALANCE (HIGH LIGHT) control circuit.

NOTE:
The setting value will be stored automatically when release the REMOTE CONTROL UNIT keys.



9. VCO

The setting for the VCO control circuit.



4.7 INITIAL SETTING VALUE OF SERVICE MODE

(1) Adjustment of the SERVICE MODE is made on the basis of the initial setting values ; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.
(2) Do not change the initial setting values of the setting items NOT LISTED IN ADJUSTMENT PROCEDURE.
(3) --- : This mark described in each table shows "Cannot adjust it."

4.7.1 [1.V/C(S)]

No.	Setting item	Variable range	Initial setting value							
			RF							
			STANDARD				THEATER			
			REGULAR	PANORAMA	CINEMA	FULL	REGULAR	PANORAMA	CINEMA	FULL
S01	BRIGHT	0 to 127	64	---	---	---	---	---	---	---
S02	PICTURE	0 to 127	55	---	---	---	---	---	---	---
S03	COLOR	0 to 127	45	---	---	---	---	---	---	---
S04	TINT	0 to 127	58	---	---	---	---	---	---	---
S05	DETAIL	0 to 63	35	---	---	---	---	---	---	---
S06	BRIGHT+-	-32 to +32	---	±0	±0	±0	+3	---	---	---
S07	PICT+-	-32 to +32	---	+3	+3	+3	-7	---	---	---
S08	COLOR+-	-32 to +32	---	±0	±0	±0	-3	---	---	---
S09	TINT+-	-32 to +32	---	±0	±0	±0	-3	---	---	---
S10	DETAIL+-	-32 to +32	---	---	---	---	±0	---	---	---

No.	Setting item	Variable range	Initial setting value	
			EXTERNAL (S / COMPOSITE)	EXTERNAL (COMPONENT)
S01	BRIGHT	0 to 127	---	---
S02	PICTURE	0 to 127	---	---
S03	COLOR	0 to 127	---	43
S04	TINT	0 to 127	---	70
S05	DETAIL	0 to 63	40	40
S06	BRIGHT+-	-32 to +32	-2	-2
S07	PICT+-	-32 to +32	+2	+2
S08	COLOR+-	-32 to +32	±0	---
S09	TINT+-	-32 to +32	+6	---
S10	DETAIL+-	-32 to +32	---	---

No.	Setting item	Variable range	Initial setting value							
			RF / EXTERNAL (S / COMPOSITE)				EXTERNAL (COMPONENT)			
			STANDARD		THEATER		STANDARD		THEATER	
			LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
S11	R CUT OFF	0 to 255	60	---	---	---	---	---	---	---
S12	G CUT OFF	0 to 255	60	---	---	---	---	---	---	---
S13	B CUT OFF	0 to 255	60	---	---	---	---	---	---	---
S14	R DRIVE	0 to 127	64	---	---	---	---	---	---	---
S15	B DRIVE	0 to 127	64	---	---	---	---	---	---	---
S16	R CUT +-	-128 to +127	---	±0	±0	±0	±0	---	---	---
S17	G CUT +-	-128 to +127	---	±0	±0	±0	±0	---	---	---
S18	B CUT +-	-128 to +127	---	±0	±0	±0	±0	---	---	---
S19	R DRV +-	-128 to +127	---	+5	+13	+7	±0	---	---	---
S20	B DRV +-	-128 to +127	---	+6	-25	-9	±0	---	---	---

No.	Setting item	Variable range	Initial setting value							
			RF / EXTERNAL (S / COMPOSITE)				EXTERNAL (COMPONENT)			
			STANDARD		THEATER		STANDARD		THEATER	
			LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
S21	NTSC MAT	0 to 3	3	3	1	1	2	2	1	1
S22	BLACK ST	0 to 3	3	---	2	---	---	---	---	---
S23	DC REST	0 to 1	1	---	1	---	---	---	---	---
S24	DCRSW	0 to 1	0	---	0	---	---	---	---	---

No.	Setting item	Variable range	Initial setting value		
			RF	EXTERNAL (S / COMPOSITE)	EXTERNAL (COMPONENT)
S25	ASSY SHRP	0 to 7	4	4	4
S26	BPF FO	0 to 1	0	0	---
S27	KILR OFF	0 to 1	0	0	---
S28	KILR SEN	0 to 1	1	1	---

No.	Setting item	Variable range	Initial setting value
S29	RGB MUTE	0 to 1	0
S30	BLUE B	0 to 1	0
S31	VIDEO SW	0 to 3	3
S32	CMP ABCL	0 to 1	0
S33	OSD ABL	0 to 1	0
S34	OSD CONT	0 to 63	7
S35	SUB CONT	0 to 15	5
S36	ABL GAIN	0 to 3	0
S37	ABL PNT	0 to 3	3
S38	Y GAMMA	0 to 3	1
S39	Y MUTE	0 to 1	0
S40	SVM GAIN	0 to 3	3
S41	SVM PH	0 to 3	2
S42	WPL	0 to 1	0
S43	COL GMM	0 to 1	0
S44	V1 GAIN	0 to 7	4
S46	VMOFF DE	-128 to +127	+3
S47	APC CLK	0 to 1	1
S48	PIP ADJ	0 to 15	8

4.7.2 [2. DEF (D)]

No.	Setting item	Variable range	Initial setting value							
			RF				EXTERNAL			
			FULL	CINEMA	PANORAMA	REGULAR	FULL	CINEMA	PANORAMA	REGULAR
D01	V FREQ	0 to 3	0	0	0	0	3	3	3	3
D02	AFC GAIN	0 to 3	0	0	0	0	2	2	2	2
D03	H POSI	0 to 31	27	---	---	---	27	---	---	---
D04	H POSI+-	-128 to +127	---	-1	0	0	---	-1	0	0
D05	V PHASE	0 to 7	0	---	---	---	0	---	---	---
D06	V PH+-	-128 to +127	---	0	0	0	---	0	0	0
D07	V SIZE	0 to 127	28	---	---	---	28	---	---	---
D08	V SIZE+-	-128 to +127	---	+13	+7	+2	-	+13	+7	+2
D09	V CENTER	0 to 63	32	---	---	---	32	---	---	---
D10	V CENT+-	-128 to +127	---	0	0	0	-	0	0	0
D11	V S CORR	0 to 15	6	---	---	---	6	---	---	---
D12	V S CO+-	-128 to +127	---	0	0	0	---	0	0	0
D13	V LIN	0 to 15	11	---	---	---	11	---	---	---
D14	V LIN+-	-128 to +127	---	0	0	0	-	0	0	0
D15	H SIZE	0 to 63	21	---	---	---	21	---	---	---
D16	H SIZE+-	-128 to +127	---	-1	-5	+17	-	-1	-5	+17
D17	WVMT TOP	0 to 3	0	0	---	---	0	0	---	---
D18	WVMT BTM	0 to 3	0	0	---	---	0	0	---	---
D19	EWCR TOP	0 to 31	19	---	---	---	19	---	---	---
D20	EWCR T+-	-128 to +127	---	-2	-1	-3	---	-2	-1	-3
D21	EWCR BTM	0 to 31	15	---	---	---	15	---	---	---
D22	EWCR B+-	-128 to +127	---	0	+3	-2	---	0	+3	-2
D23	EW PARA	0 to 63	14	---	---	---	14	---	---	---
D24	EW PARA+-	-128 to +127	---	+6	+4	1	---	+6	+4	+1
D25	V EHT	0 to 7	0	---	---	---	0	---	---	---
D26	V EHT+-	-128 to +127	---	0	0	0	---	0	0	0
D27	H EHT	0 to 7	0	---	---	---	0	---	---	---
D28	H EHT+-	-128 to +127	---	0	0	0	---	0	0	0
D29	TRAPEZ	0 to 63	30	---	---	---	30	---	---	---
D30	TRAPEZ+-	-128 to +127	---	0	+1	-2	---	0	+1	-2
D31	V AGC	0 to 1	0	0	0	0	0	0	0	0
D32	BLANK SW	0 to 1	0	0	-	0	0	0	---	0
D33	VRMP BI	0 to 1	0	0	0	0	0	0	0	0

4.7.3 [3. SOUND(A)]

No.	Setting item	Variable range	Initial setting value
A01	IN LEVEL	0 to 15	9
A02	LOW SEP	0 to 63	41
A03	HI SEP	0 to 63	36
A04	SAPC	0 to 1	0
A05	BBE BASS	-128 to +127	-2
A06	BBE TRE	-128 to +127	-2
A07	AHS MVE	-128 to +127	±0
A08	AHS MSC	-128 to +127	±0

4.7.4 [4. OTHERS(F)] [Do not adjust : All fixed]

No.	Setting item	Variable range	Initial setting value
F01	OSD POSI	0 to 255	42
F02	OSD FREQ	0 to 255	90
F03	CCD POSI	0 to 255	50
F04	CCD FREQ	0 to 255	93
F05	CCD CONT	0 to 63	4
F06	PUR WBCK	0 to 1	0
F07	PUR CONT	0 to 63	2
F08	CCD PCHK	0 to 1	1
F09	VMOFF	0 to 1	0
F10	VNR CHK	0 to 255	3
F11	VCSN TM	0 to 255	5
F12	VM DAT A	-128 to +127	+8
F13	VM DAT B	-128 to +127	-8
F14	VM DAT C	-128 to +127	-20
F15	VM DAT D	-128 to +127	-32
F16	VM DAT E	0 to 1	1
F17	XDSID TM	0 to 255	15
F18	FM TRAP	0 to 1	0

4.7.5 [5. 3L Y/C(LYC)] [Do not adjust : All fixed]

No.	Setting item	Variable range	Initial setting value
LYC01	MODE	0 to 7	4
LYC02	VENH	0 to 7	1
LYC03	PDSOFF	0 to 1	0
LYC04	CB	0 to 1	0
LYC05	VNLR	0 to 15	2
LYC06	GSEL0	0 to 1	0
LYC07	GSEL1	0 to 1	1
LYC08	COR	0 to 3	0
LYC09	TRAP	0 to 1	1
LYC10	CHTRAP	0 to 1	0
LYC11	CBPF	0 to 1	0
LYC12	ENHOFF	0 to 1	0

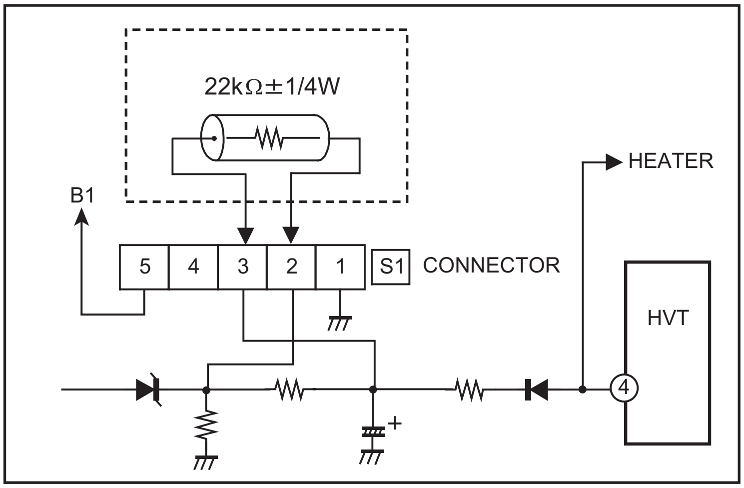
4.7.6 [12. SYSTEM(SYS)] [Do not adjust : All fixed]

No.	Setting item	Variable range	Initial setting value
SYS01	VIDEO IN	0 to 4	3
SYS02	VSM	0 to 1	1
SYS03	CLR TEMP	0 to 1	1
SYS04	THEATER	0 to 1	1
SYS05	THEA PRO	0 to 1	1
SYS06	GAME MD	0 to 1	0
SYS07	AHS	0 to 1	1
SYS08	HYPER SR	0 to 1	0
SYS09	BBE	0 to 1	1
SYS10	S SOUND	0 to 1	1
SYS11	16:9 MD	0 to 3	0
SYS12	S CCD	0 to 1	1
SYS13	ID DISP	0 to 1	1
SYS14	CH LAB	0 to 1	1
SYS15	V LAB	0 to 1	1
SYS16	W CLOCK	0 to 1	1
SYS17	PIM	0 to 1	1
SYS18	PURITY	0 to 1	0
SYS19	VOL MUTE	0 to 1	1
SYS20	VCHIP	0 to 1	1
SYS21	VCHIP CA	0 to 1	1
SYS22	CCD	0 to 1	1
SYS23	HYPSCAN	0 to 1	1
SYS24	JVC LOGO	0 to 1	1
SYS25	ASPECT	0 to 1	1
SYS26	PANORAMA	0 to 1	1

4.8 ADJUSTMENT PROCEDURE

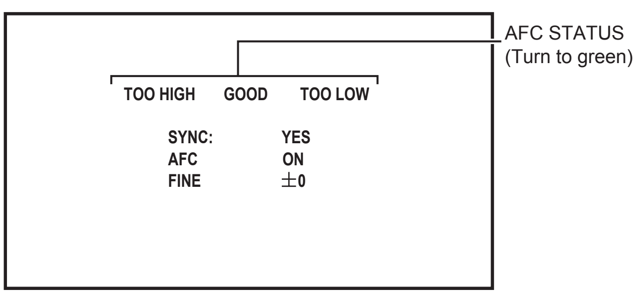
4.8.1 CHECK ITEM

Item	Measuring instrument	Test point	Adjustment part	Description
B1 VOLTAGE	DC voltmeter	S1 Connector 1-pin : TP-E 5-pin : TP-91 [MAIN PWB]		(1) Receive the black and white signal. (color off) (2) Connect the DC voltmeter to the TP-E and TP-91(B1) of S1 connector. (3) Confirm that the voltage is DC134.5V±2V.
HIGH VOLTAGE HOLD DOWN	Resistor (22kΩ, 1/4W)	S1 connector 2-pin : X-RAY2 3-pin : X-RAY1 [MAIN PWB]		• After repairing the high voltage hold down circuit. This circuit shall be checked to operate correctly. (1) Turn the power switch to on. (2) Refer to the figure, connect the resistor between S1 connector 2-pin and 3-pin. (3) Make sure that the screen picture disappeares. (4) Disconnect the power plug. (5) Remove the resistor. (6) Again connect the power plug. (7) Turn the power switch to on. (8) Make sure that the normal picture is displayed on the screen.



4.8.2 TUNER / IF CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
IF VCO	Remote control unit		[9.VCO] MAIN VCO (T111) [MAIN PWB]	• It must not adjust without inputting the RF signal. (1) Receive any broadcast. (2) Select 9.VCO from the SERVICE MODE. (3) Set "AFC" to "OFF" and "FINE" to "0". (4) Confirm that the color change from "TOO HIGH" to "TOO LOW" by CW transf. and check the "SYNC" is "YES". (5) Adjust CW transf. until "GOOD" letters turns green. And then confirm that the "SYNC" is "YES" again. Adjustment can be done in this statement. (6) It return "AFC" to "ON". (7) Push the [EXIT] key to exit the 9.VCO.



4.8.3 FOCUS

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS	Signal generator		FOCUS VR [In HVT]	(1) Receive the crosshatch signal. (2) While watching at the screen, adjust FOCUS VR to the vertical and horizontal lines will be thinnest and sharpest center horizontal line. (3) Make sure that the picture is in focus even when the screen gets darkened.

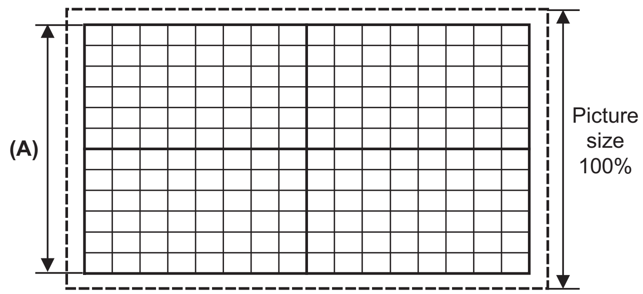
4.8.4 DEFLECTION CIRCUIT

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>V. SIZE /
V. POSITION</td><td>Signal generator

Remote control unit</td><td></td><td>[2.DEF (D)]
D05: V PHASE
D07: V SIZE
D08: V SIZE+-
D14: V LIN+-

V. CENTER SW (S421)
[MAIN PWB]</td><td rowspan="2">(1) Receive the crosshatch signal.
(2) Set the ASPECT to FULL mode.
(3) Select 2.DEF(D) from the SERVICE MODE.
(4) Select < D05 > (V PHASE) and set the value is 0.
(5) Adjust < D07 > and V. CENTER SW so that the vertical screen size (A) become setting value as shown in the table given left.
(6) Set the ASPECT to REGULAR mode.
(7) Adjust < D08 > (V SIZE+-) and < D14 > (V LIN+-) so that the vertical screen size (A) become setting value as shown in the table given left.
(8) Set the ASPECT to PANORAMA mode.
(9) Repeat the step 7 as above.
(10) Set the ASPECT to CINEMA mode.
(11) Repeat the step 7 as above.

NOTE :
• Bottom is to be located within 85% - 95% range.
• If the vertical upper and bottom corner line is not straight, adjust the upper and bottom corner pin by < D19 > (EWCR TOP) and < D21 > (EWCR BTM).</td></tr>
<tr><td colspan="4">

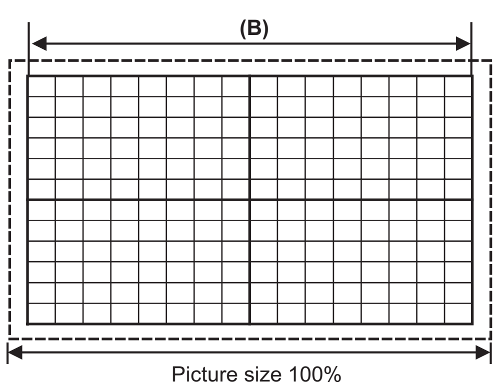


<table>
<tr><th></th><th>FULL</th><th>REGULAR</th><th>PANORAMA</th><th>CINEMA</th></tr>
<tr><td>(A)</td><td>92%</td><td>92%</td><td>85%</td><td>80%</td></tr>
</table>

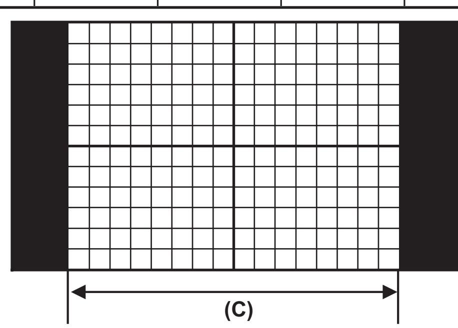
</td></tr>
<tr><td>H. SIZE /
H. POSITION /
SIDE PIN</td><td>Signal generator

Remote control unit</td><td></td><td>[2.DEF (D)]
D03: H POSI
D04: H POSI+-
D15: H SIZE
D16: H SIZE+-
D23: EW PARA
D19: EWCR TOP
D21: EWCR BTM</td><td rowspan="2">• V. SIZE / V. POSITION adjustment should be finished.
(1) Receive the crosshatch signal.
(2) Set the ASPECT to FULL mode.
(3) Select 2.DEF(D) from the SERVICE MODE.
(4) Adjust < D03 > (H POSI) and < D15 > (H SIZE) so that the horizontal screen size become setting value as shown in the table given left.
(5) Adjust the vertical line at both side to become linear line by < D23 > (EW PARA).
(6) Confirm the linearity of vertical line and horizontal size and If it is necessary, readjust steps 4 to 5.
(7) Set the ASPECT to CINEMA mode.
(8) Adjust < D04 > (H POSI+-) and < D16 > (H SIZE+-) so that the horizontal screen size become setting value as shown in the table given left.
(9) Adjust the vertical line at both side to become linear line by < D23 > (EW PARA).
(10) Set the ASPECT to PANORAMA mode.
(11) Repeat the steps 8 to 9 as above.
(12) Set the ASPECT to REGULAR mode.
(13) Repeat the steps 8 to 9 as above.
(14) Adjust the < D16 > (H SIZE+-) so that the screen size (C) become setting value as 497mm.

NOTE :
• If it is not straight the vertical upper and bottom corner line adjustment the upper and bottom corner pin by < D19 > (EWCR TOP) and < D21 > (EWCR BTM).</td></tr>
<tr><td colspan="4">



<table>
<tr><th></th><th>FULL</th><th>CINEMA</th><th>PANORAMA</th><th>REGULAR</th></tr>
<tr><td>(B)</td><td>92%</td><td>92%</td><td>93%</td><td>92%</td></tr>
</table>

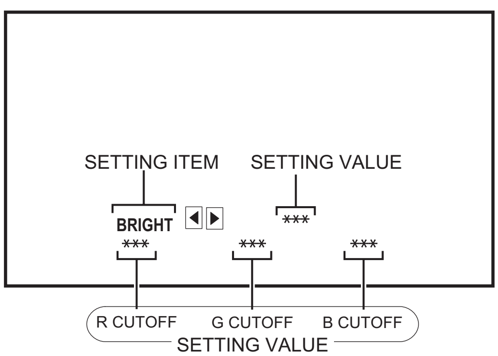


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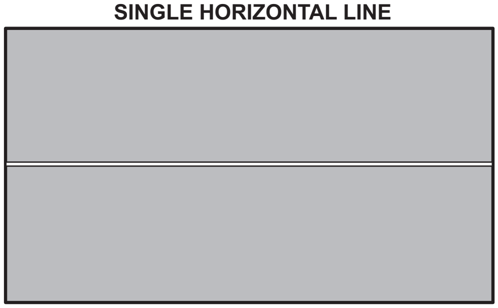
4.8.5 VIDEO CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (LOW LIGHT)	Signal generator Remote control unit		[1.V/C (S)] S01: BRIGHT S11: R CUTOFF S12: G CUTOFF S13: B CUTOFF [7.LOW LIGHT] SCREEN VR [in HVT]	(1) Receive the black and white signal (color off). (2) Select the 1.V/C (S) from the SERVICE MODE. (3) Confirm the initial setting value of < S11 > (R CUTOFF), < S12 > (G CUTOFF), < S13 > (B CUTOFF) and < S01 > (BRIGHT). (4) Return to the main menu in SERVICE MODE. (5) Select the 7.LOW LIGHT from the SERVICE MODE. (6) Display a single horizontal line by pressing the [1] key. (7) Turn the SCREEN VR all the way to the left. (8) Turn the SCREEN VR gradually to the right from the left until either one of the red, blue or green colors appears faintly. (9) Adjust the two colors which did not appear until the single horizontal line that is displayed becomes white using the [4] to [9] keys. (10) Turn the SCREEN VR until the single horizontal line is displayed faintly. (11) Press the [2] key to cancel the single horizontal line mode. (12) Return to the main menu in SERVICE MODE. (13) Select the 1.V/C (S) from the SERVICE MODE. (14) Adjust the BRIGHT level to become the black component shines white slightly by < S01 >. (15) Confirm that whether the color ingredient of R, G, or B is visible to the black component, which shines white slightly. (16) When the color ingredient can be seen, two colors other than a visible color are adjusted, and it is made to look white. (17) Return the value of < S01 > to initial setting value. • The [3] (EXIT) key is the cancel key for the WHITE BALANCE.

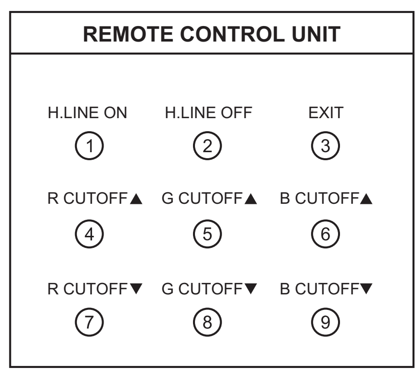
LOW LIGHT adjustment mode



SINGLE HORIZONTAL LINE

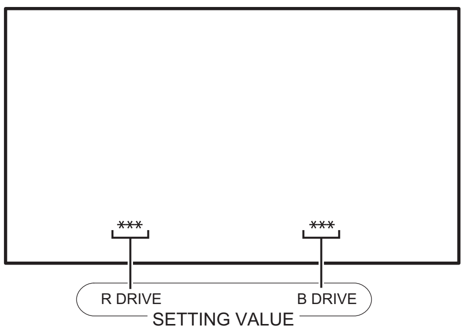


Setting item	Initial setting value
S01: BRIGHT	64
S11: R CUT OFF	60
S12: G CUT OFF	60
S13: B CUT OFF	60

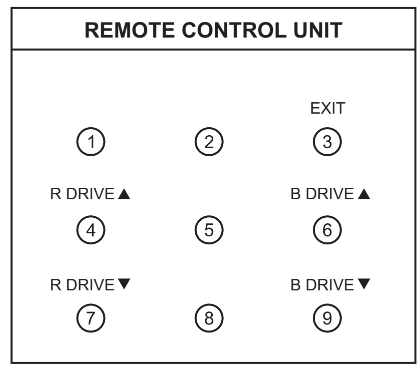


Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (HIGH LIGHT)	Signal generator Remote control unit		[1.V/C (S)] S14: R DRIVE S15: B DRIVE [8.HIGH LIHGT]	(1) Receive the black and white signal (color off). (2) Select the 1.V/C (S) from the SERVICE MODE. (3) Set the initial setting value of < S14 > (R DRIVE) and < S15 > (B DRIVE). (4) Return to the main menu in SERVICE MODE. (5) Select the 8.HIGH LIGHT from the SERVICE MODE. (6) Adjust the screen until it becomes white using the [4] , [6], [7] and [9] keys. • The [3] (EXIT) key is the cancel key for the WHITE BALANCE.

HIGH LIGHT adjustment mode



Setting item	Initial setting value
S14: R DRIVE	64
S15: B DRIVE	64



Item	Measuring instrument	Test point	Adjustment part	Description
SUB BRIGHT	Remote control unit		[1.V/C (S)] S01: BRIGHT	(1) Receive any broadcast. (2) Select the 1.V/C (S) from the SERVICE MODE. (3) Select < S01 > (BRIGHT). (4) Set the initial setting value of < S01 >. (5) If the brightness is not the best with the initial setting value, make fine adjustment of < S01 > until you get the optimum brightness.

Setting item	Initial setting value
S01: BRIGHT	64

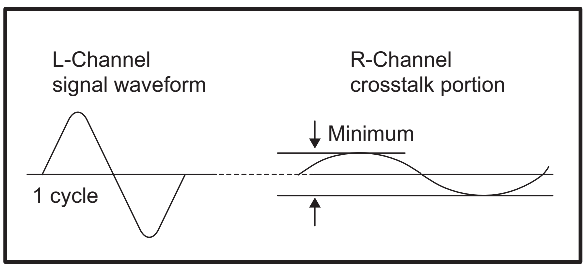
Item	Measuring instrument	Test point	Adjustment part	Description
SUB CONTRAST	Remote control unit		[1.V/C (S)] S02: PICTURE	(1) Receive any broadcast. (2) Select the 1.V/C (S) from the SERVICE MODE. (3) Select < S02 > (PICTURE). (4) Set the initial setting value of < S02 >. (5) If the contrast is not the best with the initial setting value, make fine adjustment of < S02 > until you get the optimum contrast.

Setting item	Initial setting value
S02: PICTURE	55

4.8.6 MTS CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL	Remote control unit		[3.SOUND (A)] A01: IN LEVEL	(1) Receive any broadcast. (2) Select the 3.SOUND (A) from the SERVICE MODE. (3) Select < A01 > (IN LEVEL). (4) Set the intal setting value of < A01 >.
MTS SEPARATION	TV audio multiplex signal generator Oscilloscope	R OUT L OUT [AUDIO OUT]	[3.SOUND (A)] A02: LOW SEP. A03: HI SEP.	(1) Input a stereo L signal (300Hz) from a TV audio multiplex signal generator to the antenna terminal. (2) Connect an oscilloscope to R OUT pin of the AUDIO OUT, and display one cycle portion of the 300Hz signal. (3) Select the 3.SOUND (A) from the SERVICE MODE. (4) Select < A02 > (LOW SEP.). (5) Set the initial setting value of < A02 >. (6) Adjust < A02 > so that the stroke element of the 300Hz signal will become minimum. (7) Change the connection of the oscilloscope to L OUT pin of the AUDIO OUT, and enlarge the voltage axis. (8) Change the signal to 3kHz, and similarly adjust < A03 > (HI SEP.).

Setting item	Initial setting value
A01: IN LEVEL	9



Setting item	Initial setting value
A02: LOW SEP	41
A03: HI SEP	36

SECTION 5
TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.

JVC SERVICE & ENGINEERING COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.
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(No.YA095)

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WPC

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
CR	Carbon Resistor	C CAP.	Ceramic Capacitor
FR	Fusible Resistor	E CAP.	Electrolytic Capacitor
PR	Plate Resistor	M CAP.	Mylar Capacitor
VR	Variable Resistor	CH CAP.	Chip Capacitor
HV R	High Voltage Resistor	HV CAP.	High Voltage Capacitor
MF R	Metal Film Resistor	MF CAP.	Metalized Film Capacitor
MG R	Metal Glazed Resistor	MM CAP.	Metalized Mylar Capacitor
MP R	Metal Plate Resistor	MP CAP.	Metalized Polystyrol Capacitor
OM R	Metal Oxide Film Resistor	PP CAP.	Polypropylene Capacitor
CMF R	Coating Metal Film Resistor	PS CAP.	Polystyrol Capacitor
UNF R	Non-Flammable Resistor	TF CAP.	Thin Film Capacitor
CH V R	Chip Variable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH MG R	Chip Metal Glazed Resistor	TAN. CAP.	Tantalum Capacitor
COMP. R	Composition Resistor	CH C CAP.	Chip Ceramic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
		CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

CONTENTS

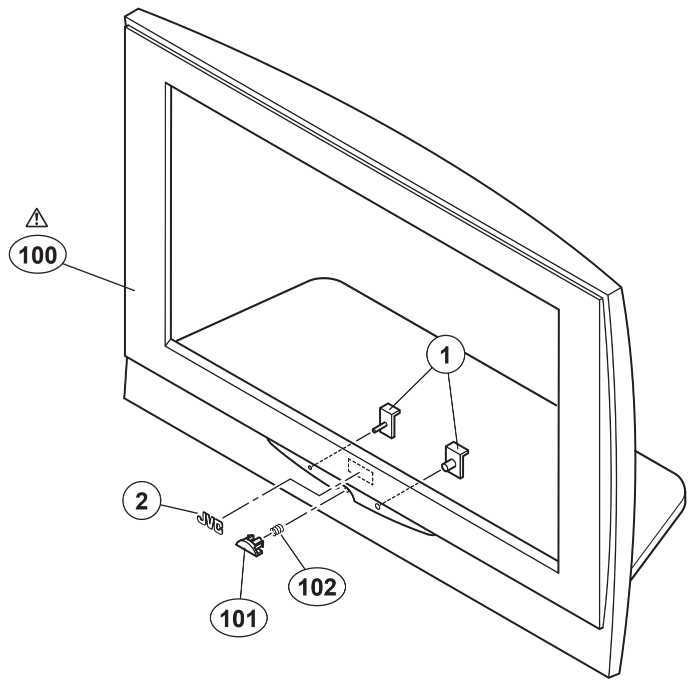
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y	AV-30W475/S	AV-30W475/Y
MAIN P.W.B	SGW-1001A-M2	SGW-1002A-M2
CRT SOCKET P.W.B	SGW-3001A-M2	SGW-3002A-M2
AV SELECTOR P.W.B	SGW-5001A-M2	←
SIDE CONTROL P.W.B	SGW-6001A-M2	←
FRONT CONTROL P.W.B	SGW-7001A-M2	←
REMOTE CONTROL UNIT	RM-C1258G-1H	←

EXPLODED VIEW PARTS LIST -1

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	GQ30062-001A-A	REMOCON LENS	2pcs in 1set	
	2	LC41193-003A-C	JVC MARK		
⚠	100	GQ10075-003A-A	FRONT CABINET ASSY	Inc.No101-102	
	101	GQ30061-001A-A	POWER KNOB		
	102	GQ30063-001A-A	SPRING		

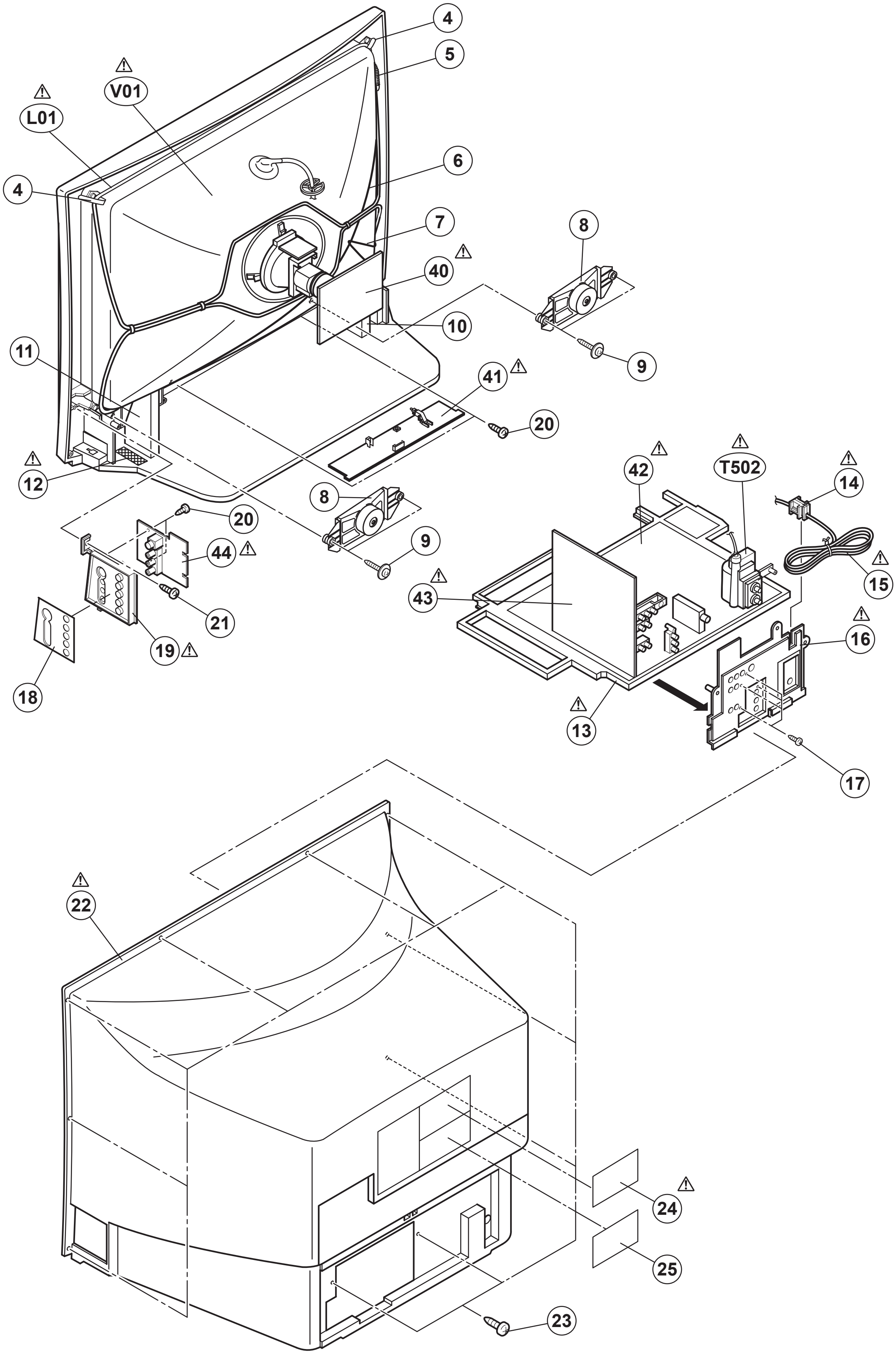
EXPLODED VIEW -1



EXPLODED VIEW PARTS LIST -2

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	W76QEN693X002	ITC	Inc.DEF YOKE/PC MAGNET/WEDGE	AV-30W475/S
⚠	V01	CHXJIM00032	ITC	Inc.DEF YOKE/PC MAGNET/WEDGE	AV-30W475/Y
⚠	L01	QQW0188-001	DEG COIL		AV-30W475/S
⚠	L01	CHXJIM00027	DEG COIL		AV-30W475/Y
⚠	T502	QQH0121-001	FB TRANSF		
	4	LC30628-002A	DEG CLAMP	(x4)	
	5	A48457-4-S	SPRING		
	6	WJY0008-003A	E-BRAIDED ASSY		
	7	WJY0013-002A	E-BRAIDED ASSY		
	8	QAS0276-001	SPEAKER	SP01/SP02(x2)	
	9	LC41029-001B-A	TAPPING SCREW	(x4)	
	10	GQ20009-002A-A	CRT SUPPORT(L)		
	11	GQ20009-001A-A	CRT SUPPORT(R)		
⚠	12	GQ30034-001B-A	WARNING LABEL		
⚠	13	LC10883-001D-A	CHASSIS BASE		
⚠	14	LC20106-001D-A	POWER CORD CLAMP		
⚠	15	QMPD200-200-JC	POWER CORD(US/CA)	2m BLACK	
⚠	16	LC20899-006A-A	TERMINAL BOARD		
	17	QYSBSB3010Z	TAP SCREW	M3 x 10mm(x4)	
	18	GQ20008-002A-A	OPERATION SHEET		
⚠	19	GQ20007-001A-A	CONTROL BASE		
	20	QYSBSBG3010Z	TAP SCREW	M3 x 10mm(x4)	
	21	QYSBSFG4016Z	TAP SCREW	M4 x 16mm	
⚠	22	GQ10074-002A-A	REAR COVER		
	23	QYSBSFG4016Z	TAP SCREW	M4 x 16mm(x10)	
⚠	24	GQ30032-001A-A	RATING LABEL		
	25	LC32912-001A-A	BBE LABEL		
⚠	40	SGW-3001A-M2	CRT SOCKET PWB		AV-30W475/S
⚠	40	SGW-3002A-M2	CRT SOCKET PWB		AV-30W475/Y
⚠	41	SGW-7001A-M2	FRONT CONTROL PWB		
⚠	42	SGW-1001A-M2	MAIN PWB		AV-30W475/S
⚠	42	SGW-1002A-M2	MAIN PWB		AV-30W475/Y
⚠	43	SGW-5001A-M2	AV SELECTOR PWB		
⚠	44	SGW-6001A-M2	SIDE CONTROL PWB		

EXPLODED VIEW -2



PRINTED WIRING BOARD PARTS LIST [AV-30W475/S]

MAIN P.W. BOARD ASS'Y (SGW-1001A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC101	M52342FP-X	IC		
IC201	TM8812CSDNG5JB4	IC		
IC421	LA78041	IC		
IC621	TFA9843J/N1	IC		
IC641	NJM2701M-X	IC		
IC651	NJM2150AD	IC		
IC702	AT24C08-30W475	IC	(SERVICE)	
IC703	S-80840CNY-T	IC		
IC704	AN78L05-T	IC		
IC852	L7809CP	IC		
IC853	L7805CP	IC		
IC860	TC74HC4538AF-X	IC		
⚠IC911	STR-G9626-F3	IC		
⚠IC921	SE135N	IC		
Q001	UN2212-X	DIGI TRANSISTOR		
Q101	2SC5083/L-P/-T	TRANSISTOR		
Q131	2SA1530A/QR/-X	TRANSISTOR		
Q161	2SC3928A/QR/-X	TRANSISTOR		
Q211	2SC3928A/QR/-X	TRANSISTOR		
Q232	2SC3928A/QR/-X	TRANSISTOR		
Q233	2SC3928A/QR/-X	TRANSISTOR		
Q352	2SC3928A/QR/-X	TRANSISTOR		
Q501	2SC4212/Z1/	TRANSISTOR		
⚠Q511	2SD2645-YD	TRANSISTOR	H OUT	
⚠Q531	2SC2785/JH/-T	SI TRANSISTOR		
Q532	2SA1530A/QR/-X	TRANSISTOR		
Q541	2SA1530A/QR/-X	TRANSISTOR		
Q542	2SA1530A/QR/-X	TRANSISTOR		
Q543	2SD1267A/QP/	POW TRANSISTOR		
Q560	2SK3567	POWER MOS FET		
Q561	2SC3928A/QR/-X	TRANSISTOR		
Q621	2SD601A/QR/-X	TRANSISTOR		
Q622	2SD601A/QR/-X	TRANSISTOR		
Q623	2SA1530A/QR/-X	TRANSISTOR		
Q625	2SD601A/QR/-X	TRANSISTOR		
Q641	2SC3928A/QR/-X	TRANSISTOR		
Q642	2SC3928A/QR/-X	TRANSISTOR		
Q701	2SA1530A/QR/-X	TRANSISTOR		
Q861	2SC3928A/QR/-X	TRANSISTOR		
Q951	2SD1383K/AB/-X	SI TRANSISTOR		
Q971	2SA1208/ST/Z1-T	TRANSISTOR		
D305	1SS133-T2	DIODE		
D306	1SS133-T2	DIODE		
D307	1SS133-T2	DIODE		
D308	1SS133-T2	DIODE		
D309	1SS133-T2	DIODE		
D310	1SS133-T2	DIODE		
D352	MTZJ9.1C-T2	Z DIODE		
D353	1SS133-T2	DIODE		
D354	MTZJ3.3A-T2	Z DIODE		
D421	1N4003-T2	SI DIODE		
D422	MTZJ75-T2	Z DIODE		
D501	RH3G-F1	SI DIODE		
D502	RU30A-F1	SI DIODE		
D521	RH1S-T3	SI DIODE		
D523	RGP10J-04TS-T3	SI DIODE		
D525	1SS81-T5	SI DIODE		
D526	1SS81-T5	SI DIODE		
D527	1SR124-400A-T2	SI DIODE		
D529	MTZJ9.1C-T2	Z DIODE		
⚠D531	MA4068N/Z1/-T2	Z DIODE		
D535	1SS133-T2	DIODE		
D601	MTZJ9.1C-T2	Z DIODE		
D602	MTZJ9.1C-T2	Z DIODE		
D603	MTZJ9.1C-T2	Z DIODE		
D621	1SS133-T2	DIODE		
D623	1SS133-T2	DIODE		
D626	1SS133-T2	DIODE		
D703	MTZJ5.6B-T2	Z DIODE		
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D705	1SS133-T2	DIODE		
D706	MTZJ5.6B-T2	Z DIODE		
D707	MTZJ5.6B-T2	Z DIODE		
D708	MTZJ5.6B-T2	Z DIODE		
D709	MTZJ5.6B-T2	Z DIODE		
D723	MTZJ5.6B-T2	Z DIODE		
D860	1SS133-T2	DIODE		
⚠D901	GSIB460	BRIDGE DIODE		
D910	MA700A-T2	SB DIODE		
D911	RGP10J-04TS-T3	SI DIODE		

⚠Ref No.	Part No.	Part Name	Description	Local
D912	RGP10J-04TS-T3	SI DIODE		
D913	1SS133-T2	DIODE		
D914	1SS133-T2	DIODE		
D915	SARS01-T2	SI DIODE		
D917	MTZJ30A-T2	Z DIODE		
D918	MTZJ5.1C-T2	Z DIODE		
D920	1SS133-T2	DIODE		
D931	RU4AM-LFT2	SI DIODE		
D933	RU3YX-LFC4	SI DIODE		
D935	RU3YX-LFC4	SI DIODE		
D937	RU3YX-LFC4	SI DIODE		
D941	MTZJ33A-T2	Z DIODE		
D945	MTZJ9.1B-T2	Z DIODE		
D952	1SS133-T2	DIODE		
D953	1SS133-T2	DIODE		
D954	1N4002G-T2	SI DIODE		
D955	1N4002G-T2	SI DIODE		
D956	1N4002G-T2	SI DIODE		
D957	1N4002G-T2	SI DIODE		
D972	MTZJ15C-T2	Z DIODE		
D973	1SS133-T2	DIODE		
C001	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C003	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C004	QETN0JM-477Z	E CAPACITOR	470uF 6.3V M	
C005	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C101	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C104	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C105	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C106	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C107	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C113	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C114	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C116	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	
C119	NDC31HJ-681X	C CAPACITOR	680pF 50V J	
C120	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C124	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C131	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C161	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C162	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C163	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C164	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C165	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C166	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C167	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C202	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C203	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C211	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C212	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C222	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C223	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C233	NDC31HJ-680X	C CAPACITOR	68pF 50V J	
C237	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C241	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C242	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C243	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M	
C244	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C281	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J	
C282	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C283	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C284	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C285	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C286	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C287	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C288	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C302	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C352	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C354	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C360	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C391	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C392	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C422	QFN32AK-102Z	M CAPACITOR	1000pF 100V K	
C424	QETN1VM-107Z	E CAPACITOR	100uF 35V M	
C425	QETN1VM-477Z	E CAPACITOR	470uF 35V M	
C427	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C428	QETM1EM-228	E CAPACITOR	2200uF 25V M	
C431	QFLC2AK-563Z	M CAPACITOR	0.056uF 100V K	
C433	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C435	NCB31HK-183X	C CAPACITOR	0.018uF 50V K	
C440	QCS32HJ-100Z	C CAPACITOR	10pF 500V J	
C501	QCB32HK-151Z	C CAPACITOR	150pF 500V K	
C502	QCB32HK-331Z	C CAPACITOR	330pF 500V K	

⚠Ref No.	Part No.	Part Name	Description	Local
C503	QEHR2CM-105Z	E CAPACITOR	1uF 160V M	
C504	QEZ0203-107	E CAPACITOR	100uF 160V M	
C507	QEZ0195-475Z	BP E CAPACITOR	4.7uF 50V M	
⚠C510	QFZ0200-382	MPP CAPACITOR	3800pF 1.5kV H	
⚠C513	QFZ0196-153	MPP CAPACITOR	0.015uF 1.5kV H	
C514	QFP32GJ-183	PP CAPACITOR	0.018uF 400V J	
C515	QFZ0197-514	MPP CAPACITOR	0.51uF 250V J	
C516	QCB32HK-561Z	C CAPACITOR	560pF 500V K	
C521	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C523	QEHR1VM-108Z	E CAPACITOR	1000uF 35V M	
C525	QETN1VM-107Z	E CAPACITOR	100uF 35V M	
C526	QFV21HJ-824Z	MF CAPACITOR	0.82uF 50V J	
C527	QFLC2AJ-103Z	M CAPACITOR	0.01uF 100V J	
C533	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C560	QFZ0197-304	MPP CAPACITOR	0.3uF 250V J	
C601	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	
C602	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C603	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C604	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C621	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C622	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C624	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C626	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C627	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C628	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C629	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C630	QETN1EM-227Z	E CAPACITOR	220uF 25V M	
C632	QETN1EM-477Z	E CAPACITOR	470uF 25V M	
C633	QETN1EM-227Z	E CAPACITOR	220uF 25V M	
C634	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C635	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C637	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C638	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C641	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C642	NCB31CK-273X	C CAPACITOR	0.027uF 16V K	
C643	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C644	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C645	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C646	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C647	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C648	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C649	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C651	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C652	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C655	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C656	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C657	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	
C658	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	
C659	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C660	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C661	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C662	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C700	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C701	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C702	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C703	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C704	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C705	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C708	NDC31HJ-220X	C CAPACITOR	22pF 50V J	
C709	NDC31HJ-220X	C CAPACITOR	22pF 50V J	
C711	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C712	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C728	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C807	QETN1AM-477Z	E CAPACITOR	470uF 10V M	
C815	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C853	QETN1EM-227Z	E CAPACITOR	220uF 25V M	
C854	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C856	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C857	QETN0JM-477Z	E CAPACITOR	470uF 6.3V M	
C861	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C862	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C863	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C864	NCB31HK-221X	C CAPACITOR	220pF 50V K	
⚠C901	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K	
⚠C902	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K	
⚠C903	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K	
⚠C904	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
⚠C905	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
⚠C906	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
C907	QEZ0644-567	E CAPACITOR	560uF 200V K	
⚠C908	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
C912	QCZ0340-222	C CAPACITOR	2200pF 2kV K	
C913	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	
C914	QETN1HM-107Z	E CAPACITOR	100uF 50V M	
C916	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C917	NCB31HK-182X	C CAPACITOR	1800pF 50V K	
C918	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C919	QFP32GJ-103	PP CAPACITOR	0.01uF 400V J	
C931	QEZ0203-227	E CAPACITOR	220uF 160V M	
C932	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C933	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C934	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C935	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	
C937	QCZ0340-102	C CAPACITOR	1000pF 2kV K	
C938	QETN1EM-477Z	E CAPACITOR	470uF 25V M	
C939	QCB32HK-152Z	C CAPACITOR	1500pF 500V K	
C941	QCB32HK-102Z	C CAPACITOR	1000pF 500V K	
C942	QEHR1HM-105Z	E CAPACITOR	1uF 50V M	
C943	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C951	QETN1EM-477Z	E CAPACITOR	470uF 25V M	
C952	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C971	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C972	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
⚠C997	QCZ9079-102	C CAPACITOR	1000pF AC250V M	
⚠C998	QCZ9074-103	C CAPACITOR	0.01uF AC250V M	
⚠C999	QCZ9074-103	C CAPACITOR	0.01uF AC250V M	
R003	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R004	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R005	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R006	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R008	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	
R009	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R101	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R102	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R103	QRE121J-101Y	C RESISTOR	100Ω 1/2W J	
R104	NRSA63J-180X	MG RESISTOR	18Ω 1/16W J	
R105	NRSA63J-270X	MG RESISTOR	27Ω 1/16W J	
R111	NRSA63J-394X	MG RESISTOR	390kΩ 1/16W J	
R112	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R113	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R115	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R116	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J	
R117	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R120	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R121	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R131	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R132	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R133	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R134	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R135	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R161	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R163	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R164	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R165	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R166	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R167	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R168	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R169	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R171	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R201	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R212	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R215	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R216	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R217	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R227	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R231	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R237	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R238	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R241	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R243	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R281	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R282	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R283	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R286	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R287	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R288	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	
R289	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J	
R290	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R292	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R293	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R296	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R297	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R298	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R301	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R302	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R303	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R304	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R305	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R306	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R318	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R319	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R354	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R355	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R356	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R359	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R421	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R423	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
R424	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
R426	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R427	QRT029J-1R2	MF RESISTOR	1.2Ω 2W J	
R428	QRE121J-120Y	C RESISTOR	12Ω 1/2W J	
R429	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R431	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R432	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R433	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R434	QRL029J-221	OMF RESISTOR	220Ω 2W J	
R435	QRE121J-102Y	C RESISTOR	1kΩ 1/2W J	
R441	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R502	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R503	QRE121J-103Y	C RESISTOR	10kΩ 1/2W J	
R504	QRL039J-152	OMF RESISTOR	1.5kΩ 3W J	
R505	QRL039J-152	OMF RESISTOR	1.5kΩ 3W J	
R511	QRE121J-220Y	C RESISTOR	22Ω 1/2W J	
R512	QRE121J-681Y	C RESISTOR	680Ω 1/2W J	
R516	QRZ0221-2R0	OMF RESISTOR	2Ω 7W K	
R524	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R526	QRE121J-272Y	C RESISTOR	2.7kΩ 1/2W J	
R527	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J	
R528	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J	
R529	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
⚠R531	QRZ0230-391X	UNF C RESISTOR	390Ω 1/4W J	
⚠R532	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R533	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R534	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
⚠R535	NRVA02D-242X	CMF RESISTOR	2.4kΩ 1/10W D	
R536	QRE121J-470Y	C RESISTOR	47Ω 1/2W J	
⚠R537	NRVA02D-752X	CMF RESISTOR	7.5kΩ 1/10W D	
R538	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R543	QRE121J-122Y	C RESISTOR	1.2kΩ 1/2W J	
R544	QRE121J-472Y	C RESISTOR	4.7kΩ 1/2W J	
R545	QRE121J-123Y	C RESISTOR	12kΩ 1/2W J	
R546	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R547	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R548	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J	
R553	QRL039J-100	OMF RESISTOR	10Ω 3W J	
⚠R554	QRK129J-1R0	UNF C RESISTOR	1Ω 1/2W J	
R555	QRT029J-2R2	MF RESISTOR	2.2Ω 2W J	
R560	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J	
R561	QRE121J-562Y	C RESISTOR	5.6kΩ 1/2W J	
R562	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R563	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R601	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R602	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R603	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R621	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R623	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R624	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R626	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R627	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R628	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R630	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R631	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R641	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R642	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R643	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R644	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R645	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R646	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R647	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R648	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R649	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R651	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R652	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R653	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R654	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R655	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R657	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R659	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R700	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R701	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R702	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R704	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R705	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R706	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R708	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R709	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R718	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R721	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R729	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R731	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R732	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R733	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R734	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R739	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R740	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R764	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R765	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R766	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R767	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R769	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R772	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R811	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R816	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R821	NRSA63J-184X	MG RESISTOR	180kΩ 1/16W J	
R827	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R839	NRSA63J-225X	MG RESISTOR	2.2MΩ 1/16W J	
R855	QRL029J-820	OMF RESISTOR	82Ω 2W J	
R857	QRL029J-820	OMF RESISTOR	82Ω 2W J	
R860	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R861	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R862	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R864	NRSA63J-564X	MG RESISTOR	560kΩ 1/16W J	
R865	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R866	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R867	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R869	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R870	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R871	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R872	QVP0087-203Z	TRIM RESISTOR	20kΩ 0.3W N	
R873	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R901	QRF074K-1R2	UNF WW RESISTOR	1.2Ω 7W K	
R909	QRG01GJ-470	OMF RESISTOR	47Ω 1W J	
R911	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J	
R912	QRT029J-R18	MF RESISTOR	0.18Ω 2W J	
R913	QRT029J-R15	MF RESISTOR	0.15Ω 2W J	
⚠R914	QRK126J-681X	UNF C RESISTOR	680Ω 1/2W J	
R915	QRK129J-6R8	UNF C RESISTOR	6.8Ω 1/2W J	
⚠R917	QRK126J-332X	UNF C RESISTOR	3.3kΩ 1/2W J	
R918	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R919	QRE121J-684Y	C RESISTOR	680kΩ 1/2W J	
R924	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R930	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J	
R940	QRE121J-181Y	C RESISTOR	180Ω 1/2W J	
R941	QRL029J-183	OMF RESISTOR	18kΩ 2W J	
R950	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R951	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R952	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R953	QRE121J-820Y	C RESISTOR	82Ω 1/2W J	
R972	NRVA02D-102X	CMF RESISTOR	1kΩ 1/10W D	
R973	NRVA02D-332X	CMF RESISTOR	3.3kΩ 1/10W D	
R975	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J	
R977	QRE121J-473Y	C RESISTOR	47kΩ 1/2W J	
R978	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
⚠R998	QRZ9041-275	C RESISTOR	2.7MΩ 1/2W K	
R999	QRE121J-121Y	C RESISTOR	120Ω 1/2W J	
L001	QQL244K-560Z	PEAKING COIL	56uH K	
L101	QQLZ014-R39	COIL	0.39uH 100mA L	
L131	QQL29BJ-220Z	PEAKING COIL	22uH J	
L161	QQL29BJ-220Z	PEAKING COIL	22uH J	
L232	QQL244K-560Z	PEAKING COIL	56uH K	
L241	QQL244K-220Z	PEAKING COIL	22uH K	
L391	QQL244K-220Z	PEAKING COIL	22uH K	
L511	QQR1027-005	LINEARITY COIL		
L512	QQLZ036-222	COIL	2.2mH J	
L513	QQLZ036-222	COIL	2.2mH J	
L521	QQLZ026-540	COIL	54uH ±7%	
L701	QQL244K-220Z	PEAKING COIL	22uH K	
L702	QQL244K-220Z	PEAKING COIL	22uH K	
L703	QQL244K-220Z	PEAKING COIL	22uH K	
L704	QQL244K-220Z	PEAKING COIL	22uH K	
L705	QQL244K-220Z	PEAKING COIL	22uH K	
L931	QQL26AK-470Z	CHOKE COIL	47uH K	
L933	QQL26AK-470Z	CHOKE COIL	47uH K	
L937	QQL26AK-470Z	CHOKE COIL	47uH K	
L940	QQR0582-001Z	FERRITE BEADS		
T111	QQR0907-001	I F T		
T501	QQR1414-001	DRIVE TRANSF		
⚠T921	QQS0152-001	SW TRANSF		
⚠T951	QQT0355-001	POWER TRANSF		
CF001	QAX0349-001	C TRAP	47.25MHz	
CF131	QAX0639-001Z	C TRAP	4.500MHz	
CF161	QAX0642-001Z	C FILTER	4.500MHz	
CN001	QGB1505J1-35	CONNECTOR	B-B (1-35)	

⚠Ref No.	Part No.	Part Name	Description	Local
CN0E1	CE41507-001P	LV CONNECTOR		
CN0E3	CE41507-001P	LV CONNECTOR		
⚠CP932	ICP-N70-T	IC PROTECTOR	2.5A	
⚠CP933	ICP-N70-T	IC PROTECTOR	2.5A	
⚠CP936	ICP-N70-T	IC PROTECTOR	2.5A	
⚠F901	QMF51N1-5R0-J5	FUSE	5A AC125V	
⚠F905	QMFZ049-5R0Z-E	FUSE	5A 125V	
⚠FR525	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J	
HS001	LC32600-001A	HEAT SINK		
HS002	LC31678-001A	HEAT SINK/AL-F/		
HS003	LC32111-002A	HEAT SINK/AL-F/		
HS004	CEHE015-001WU	HEAT SINK		
HS005	CM42862-00G-H	HEAT SINK ASSY		
HS007	CEHT11B-002QS	HEAT SINK		
HS009	CEHT11B-002QS	HEAT SINK		
J601	QNN0349-002	PIN JACK	COMP IN	
K101	QQR0582-001Z	FERRITE BEADS		
K401	QQR0621-002Z	FERRITE BEADS		
K912	QQR0582-001Z	FERRITE BEADS		
K916	QQR0582-001Z	FERRITE BEADS		
K917	QQR0582-001Z	FERRITE BEADS		
K918	QQR0582-001Z	FERRITE BEADS		
K920	QQR1139-001	FERRITE BEADS		
K931	QQR0582-001Z	FERRITE BEADS		
K932	QQR0582-001Z	FERRITE BEADS		
K933	QQR0582-001Z	FERRITE BEADS		
K935	QQR0582-001Z	FERRITE BEADS		
K937	QQR0582-001Z	FERRITE BEADS		
LC601	QQR1459-001	EMI F. COIL		
LC602	QQR1459-001	EMI F. COIL		
LC603	QQR1459-001	EMI F. COIL		
⚠LF901	QQR1159-001	LINE FILTER		
⚠LF902	QQR0527-004	LINE FILTER		
⚠PC560	PC123Y22	PHOTO COUPLER		
⚠PC921	PC123Y22	PHOTO COUPLER		
⚠RY951	QSK0085-001	RELAY		
S421	QSL4A13-C02	LEVER SWITCH	V.CENTER	
SF101	QAX0723-001	SAW FILTER		
⚠TH901	QAD0132-3R0	P THERMISTOR	3Ω	
⚠TU001	QAU0305-001	TUNER		
⚠VA901	ERZV10V621CS	ZNR		
X701	QAX0767-001Z	CRYSTAL	8MHz	

CRT SOCKET P.W. BOARD ASS'Y (SGW-3001A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
Q3103	2SC3928A/QR/-X	TRANSISTOR		
Q3107	2SA2005/DE/	POW TRANSISTOR		
Q3108	2SC5511/DE/	POW TRANSISTOR		
Q3109	2SC3928A/QR/-X	TRANSISTOR		
Q3304	2SC4544-LB	POW TRANSISTOR		
Q3305	2SC4544-LB	POW TRANSISTOR		
Q3306	2SC4544-LB	POW TRANSISTOR		
Q3351	2SA1530A/QR/-X	TRANSISTOR		
D3105	RH1S-T3	SI DIODE		
D3106	RH1S-T3	SI DIODE		
D3311	MTZJ3.6B-T2	Z DIODE		
D3312	1SS133-T2	DIODE		
D3313	MTZJ3.6B-T2	Z DIODE		
D3314	1SS133-T2	DIODE		
D3331	1SS133-T2	DIODE		
D3351	1SS133-T2	DIODE		
D3352	1SS133-T2	DIODE		
D3353	1SS133-T2	DIODE		
D3354	1SS133-T2	DIODE		
C3101	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3113	QETN2CM-106Z	E CAPACITOR	10uF 160V M	
C3114	QCB32HK-472Z	C CAPACITOR	4700pF 500V K	
C3115	QCB32HK-472Z	C CAPACITOR	4700pF 500V K	
C3117	QETN2CM-106Z	E CAPACITOR	10uF 160V M	
C3118	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	
C3119	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C3120	QETN1AM-337Z	E CAPACITOR	330uF 10V M	
C3121	QCS32HJ-151Z	C CAPACITOR	150pF 500V J	
C3127	NDC31HJ-471X	C CAPACITOR	470pF 50V J	
C3301	NDC31HJ-561X	C CAPACITOR	560pF 50V J	
C3302	NDC31HJ-391X	C CAPACITOR	390pF 50V J	
C3303	NDC31HJ-561X	C CAPACITOR	560pF 50V J	
C3323	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C3331	NDC31HJ-181X	C CAPACITOR	180pF 50V J	

⚠Ref No.	Part No.	Part Name	Description	Local
C3332	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
C3333	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
C3351	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C3363	QCZ0121-102	C CAPACITOR	1000pF 3KV Z	
R3115	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3116	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3122	QRT029J-R15	MF RESISTOR	0.15Ω 2W J	
R3123	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R3124	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	
R3125	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3126	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R3127	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R3128	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R3129	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3130	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	
R3131	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R3132	QRL029J-391	OMF RESISTOR	390Ω 2W J	
R3134	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3136	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R3139	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R3142	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R3143	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R3144	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3145	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3146	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3148	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3301	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3302	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3303	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3304	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3305	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3306	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3307	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3308	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3309	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3310	QRL029J-183	OMF RESISTOR	18kΩ 2W J	
R3311	QRL029J-183	OMF RESISTOR	18kΩ 2W J	
R3312	QRL029J-183	OMF RESISTOR	18kΩ 2W J	
R3313	QRL029J-223	OMF RESISTOR	22kΩ 2W J	
R3314	QRL029J-223	OMF RESISTOR	22kΩ 2W J	
R3315	QRL029J-223	OMF RESISTOR	22kΩ 2W J	
R3325	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	
R3326	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	
R3327	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	
R3331	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R3332	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R3333	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R3334	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3335	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J	
R3351	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3354	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
L3304	QQL244K-470Z	PEAKING COIL	47uH K	
L3521	QQLZ026-540	COIL	54uH ±7%	
CN3004	QJB003-074022	SIN ID C-B WIRE		
CN3005	WJA0029-002A	E-SI ID WIRE		
CN30E2	QUB130-46A6AS	SIN TWIST WIRE		
CN30E4	QUB130-46A6AS	SIN TWIST WIRE		
K3104	QQR1114-001Z	FERRITE BEADS		
K3105	QQR1114-001Z	FERRITE BEADS		
⚠SK3001	QNZ0536-001	CRT SOCKET		

AV SELECTOR P.W. BOARD ASS'Y (SGW-5001A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC5001	CXA2205Q-X	IC		
IC5201	TC90A49AP	IC		
IC5501	TA1218AN	IC		
IC5701	CXA1875AM-X	IC		
Q5001	2SA1530A/QR/-X	TRANSISTOR		
Q5002	2SA1530A/QR/-X	TRANSISTOR		
Q5211	2SC3928A/QR/-X	TRANSISTOR		
Q5212	2SC3928A/QR/-X	TRANSISTOR		
Q5251	2SC3928A/QR/-X	TRANSISTOR		
Q5252	2SA1530A/QR/-X	TRANSISTOR		
Q5253	2SA1530A/QR/-X	TRANSISTOR		
Q5261	2SA1530A/QR/-X	TRANSISTOR		
Q5262	2SC3928A/QR/-X	TRANSISTOR		
Q5263	2SA1530A/QR/-X	TRANSISTOR		

⚠Ref No.	Part No.	Part Name	Description	Local
Q5384	DTC323TK-X	DIGI TRANSISTOR		
Q5385	DTC323TK-X	DIGI TRANSISTOR		
Q5386	DTC323TK-X	DIGI TRANSISTOR		
Q5387	DTC323TK-X	DIGI TRANSISTOR		
Q5501	2SA1530A/QR/-X	TRANSISTOR		
Q5901	2SA1530A/QR/-X	TRANSISTOR		
Q5902	2SC3928A/QR/-X	TRANSISTOR		
Q5903	2SA1530A/QR/-X	TRANSISTOR		
Q5904	2SC3928A/QR/-X	TRANSISTOR		
Q5905	2SC3928A/QR/-X	TRANSISTOR		
Q5906	2SC3928A/QR/-X	TRANSISTOR		
Q5907	2SC3928A/QR/-X	TRANSISTOR		
Q5908	2SC3928A/QR/-X	TRANSISTOR		
D5391	MTZJ9.1C-T2	Z DIODE		
D5392	MTZJ9.1C-T2	Z DIODE		
D5501	MTZJ9.1C-T2	Z DIODE		
D5502	MTZJ9.1C-T2	Z DIODE		
D5503	MTZJ9.1C-T2	Z DIODE		
D5504	MTZJ9.1C-T2	Z DIODE		
D5505	MTZJ9.1C-T2	Z DIODE		
D5507	MTZJ9.1C-T2	Z DIODE		
D5508	MTZJ9.1C-T2	Z DIODE		
D5509	MTZJ9.1C-T2	Z DIODE		
D5510	MTZJ9.1C-T2	Z DIODE		
D5511	MTZJ9.1C-T2	Z DIODE		
D5512	MTZJ9.1C-T2	Z DIODE		
D5513	MTZJ9.1C-T2	Z DIODE		
C5001	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C5002	NCB31HK-562X	C CAPACITOR	5600pF 50V K	
C5003	NCB31HK-123X	C CAPACITOR	0.012uF 50V K	
C5004	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C5005	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C5006	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C5007	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C5008	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C5009	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C5010	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C5011	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C5012	NCB31HK-272X	C CAPACITOR	2700pF 50V K	
C5013	NCB31HK-473X	C CAPACITOR	0.047uF 50V K	
C5014	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C5015	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C5016	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C5017	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C5018	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C5019	NCB31HK-223X	C CAPACITOR	0.022uF 50V K	
C5020	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C5021	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C5022	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C5023	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C5024	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C5025	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C5026	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M	
C5027	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5028	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5029	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5030	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C5031	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C5203	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C5204	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5205	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C5206	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5211	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C5212	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C5213	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C5214	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
C5215	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C5226	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5231	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C5232	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5233	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5234	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5235	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5236	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C5237	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5238	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C5239	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5240	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5241	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5242	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C5243	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5246	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
C5247	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5251	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C5252	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	

⚠Ref No.	Part No.	Part Name	Description	Local
C5253	NDC31HJ-820X	C CAPACITOR	82pF 50V J	
C5255	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C5263	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C5380	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C5391	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C5392	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C5501	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C5502	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C5503	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C5504	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C5508	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C5509	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5520	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C5521	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C5531	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5532	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C5533	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C5534	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C5546	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C5547	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C5703	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C5704	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C5901	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C5902	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C5903	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C5904	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
R5001	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5002	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R5003	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5004	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R5005	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R5007	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R5008	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R5009	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R5010	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R5011	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5012	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5013	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5014	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5015	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5016	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5017	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5031	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5032	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5033	NRSA63J-272X	MG RESISTOR	2.7Ω 1/16W J	
R5034	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R5210	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5211	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R5212	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5213	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5214	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R5215	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R5216	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R5217	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R5240	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5241	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R5242	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5243	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5251	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R5253	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5254	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5255	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R5258	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5259	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R5261	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5262	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R5263	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R5265	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5269	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R5270	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5384	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R5385	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R5386	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R5387	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R5391	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R5392	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R5393	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R5394	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R5395	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R5396	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R5501	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5502	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5503	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5504	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5505	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5507	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R5508	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R5509	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5510	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5511	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5512	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5513	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R5514	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5515	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5516	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5517	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5519	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R5520	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R5521	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R5522	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R5523	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R5524	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5526	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5532	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R5533	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R5541	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5542	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5543	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5544	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5545	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5546	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5558	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5559	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5560	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5561	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5701	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5702	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R5901	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R5902	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J	
R5903	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R5904	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J	
R5906	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R5907	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R5908	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R5909	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R5910	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R5911	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R5913	QRE121J-220Y	C RESISTOR	22Ω 1/2W J	
R5914	QRE121J-220Y	C RESISTOR	22Ω 1/2W J	
L5202	QQL244K-150Z	PEAKING COIL	15uH K	
L5211	QQL244K-4R7Z	PEAKING COIL	4.7uH K	
L5241	QQL244K-4R7Z	PEAKING COIL	4.7uH K	
L5243	QQL244K-4R7Z	PEAKING COIL	4.7uH K	
L5244	QQL244K-4R7Z	PEAKING COIL	4.7uH K	
L5261	QQL244K-150Z	PEAKING COIL	15uH K	
CN5001	QGB1505K1-35	CONNECTOR	B-B (1-35)	
J5501	QNZ0454-001	AV JACK	S/V/L/R IN	
J5502	QNN0348-001	PIN JACK	V/L/R IN	
J5503	QNN0348-001	PIN JACK	L/R OUT	

SIDE CONTROL P.W. BOARD ASS'Y (SGW-6001A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
C6401	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C6402	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C6403	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
R6401	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R6402	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R6403	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R6702	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R6703	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R6704	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R6705	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R6706	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
CN6006	QJB003-056430	SIN ID C-B WIRE		
CN600B	QJB003-034633	SIN ID C-B WIRE		
J6401	QNN0591-001	PIN JACK	V/L/R IN	
LC6401	QQR1459-001	EMI F. COIL		
LC6402	QQR1459-001	EMI F. COIL		
LC6403	QQR1459-001	EMI F. COIL		
S6702	QSW0619-003Z	TACT SWITCH	MENU	
S6703	QSW0619-003Z	TACT SWITCH	CH-	
S6704	QSW0619-003Z	TACT SWITCH	CH+	
S6705	QSW0619-003Z	TACT SWITCH	VOL-	

⚠Ref No.	Part No.	Part Name	Description	Local
S6706	QSW0619-003Z	TACT SWITCH	VOL+	

FRONT CONTROL P.W. BOARD ASS'Y (SGW-7001A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC7701	GP1UM281QK	IR DETECT UNIT	38kHz	
Q7702	UN2112-X	DIGI TRANSISTOR		
D7701	LG22440	LED	POWER	
C7701	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
R7708	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R7709	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R7710	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7711	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
CN7007	QJB003-064426	SIN ID C-B WIRE		
S7701	QSW0847-001	TACT SWITCH	POWER	

PRINTED WIRING BOARD PARTS LIST [AV-30W475/Y]

MAIN P.W. BOARD ASS'Y (SGW-1002A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC101	M52342FP-X	IC		
IC201	TM8812CSDNG5JB4	IC		
IC421	LA78041	IC		
IC621	TFA9843J/N1	IC		
IC641	NJM2701M-X	IC		
IC651	NJM2150AD	IC		
IC702	AT24C08-30W475	IC	(SERVICE)	
IC703	S-80840CNY-T	IC		
IC704	AN78L05-T	IC		
IC852	L7809CP	IC		
IC853	L7805CP	IC		
IC860	TC74HC4538AF-X	IC		
⚠IC911	STR-G9626-F3	IC		
⚠IC921	SE135N	IC		
Q001	UN2212-X	DIGI TRANSISTOR		
Q101	2SC5083/L-P/-T	TRANSISTOR		
Q131	2SA1530A/QR/-X	TRANSISTOR		
Q161	2SC3928A/QR/-X	TRANSISTOR		
Q211	2SC3928A/QR/-X	TRANSISTOR		
Q232	2SC3928A/QR/-X	TRANSISTOR		
Q233	2SC3928A/QR/-X	TRANSISTOR		
Q352	2SC3928A/QR/-X	TRANSISTOR		
Q501	2SC4212/Z1/	TRANSISTOR		
⚠Q511	2SD2645-YD	TRANSISTOR	H OUT	
⚠Q531	2SC2785/JH/-T	SI TRANSISTOR		
Q532	2SA1530A/QR/-X	TRANSISTOR		
Q541	2SA1530A/QR/-X	TRANSISTOR		
Q542	2SA1530A/QR/-X	TRANSISTOR		
Q543	2SD1267A/QP/	POW TRANSISTOR		
Q560	2SK3567	POWER MOS FET		
Q561	2SC3928A/QR/-X	TRANSISTOR		
Q621	2SD601A/QR/-X	TRANSISTOR		
Q622	2SD601A/QR/-X	TRANSISTOR		
Q623	2SA1530A/QR/-X	TRANSISTOR		
Q625	2SD601A/QR/-X	TRANSISTOR		
Q641	2SC3928A/QR/-X	TRANSISTOR		
Q642	2SC3928A/QR/-X	TRANSISTOR		
Q701	2SA1530A/QR/-X	TRANSISTOR		
Q861	2SC3928A/QR/-X	TRANSISTOR		
Q951	2SD1383K/AB/-X	SI TRANSISTOR		
Q971	2SA1208/ST/Z1-T	TRANSISTOR		
D305	1SS133-T2	DIODE		
D306	1SS133-T2	DIODE		
D307	1SS133-T2	DIODE		
D308	1SS133-T2	DIODE		
D309	1SS133-T2	DIODE		
D310	1SS133-T2	DIODE		
D352	MTZJ9.1C-T2	Z DIODE		
D353	1SS133-T2	DIODE		
D354	MTZJ3.3A-T2	Z DIODE		
D421	1N4003-T2	SI DIODE		
D422	MTZJ75-T2	Z DIODE		
D501	RH3G-F1	SI DIODE		
D502	RU30A-F1	SI DIODE		
D521	RH1S-T3	SI DIODE		
D523	RGP10J-04TS-T3	SI DIODE		
D525	1SS81-T5	SI DIODE		
D526	1SS81-T5	SI DIODE		
D527	1SR124-400A-T2	SI DIODE		
D529	MTZJ9.1C-T2	Z DIODE		
⚠D531	MA4068N/Z1/-T2	Z DIODE		
D535	1SS133-T2	DIODE		
D601	MTZJ9.1C-T2	Z DIODE		
D602	MTZJ9.1C-T2	Z DIODE		
D603	MTZJ9.1C-T2	Z DIODE		
D621	1SS133-T2	DIODE		
D623	1SS133-T2	DIODE		
D626	1SS133-T2	DIODE		
D703	MTZJ5.6B-T2	Z DIODE		
D704	MTZJ5.6B-T2	Z DIODE		
D705	1SS133-T2	DIODE		
D706	MTZJ5.6B-T2	Z DIODE		
D707	MTZJ5.6B-T2	Z DIODE		
D708	MTZJ5.6B-T2	Z DIODE		
D709	MTZJ5.6B-T2	Z DIODE		
D723	MTZJ5.6B-T2	Z DIODE		
D860	1SS133-T2	DIODE		
⚠D901	GSIB460	BRIDGE DIODE		
D910	MA700A-T2	SB DIODE		
D911	RGP10J-04TS-T3	SI DIODE		
D912	RGP10J-04TS-T3	SI DIODE		
D913	1SS133-T2	DIODE		
D914	1SS133-T2	DIODE		
D915	SARS01-T2	SI DIODE		
D917	MTZJ30A-T2	Z DIODE		
D918	MTZJ5.1C-T2	Z DIODE		
D920	1SS133-T2	DIODE		
D931	RU4AM-LFT2	SI DIODE		
D933	RU3YX-LFC4	SI DIODE		
D935	RU3YX-LFC4	SI DIODE		
D937	RU3YX-LFC4	SI DIODE		
D941	MTZJ33A-T2	Z DIODE		
D945	MTZJ9.1B-T2	Z DIODE		
D952	1SS133-T2	DIODE		
D953	1SS133-T2	DIODE		
D954	1N4002G-T2	SI DIODE		
D955	1N4002G-T2	SI DIODE		
D956	1N4002G-T2	SI DIODE		
D957	1N4002G-T2	SI DIODE		
D972	MTZJ15C-T2	Z DIODE		
D973	1SS133-T2	DIODE		
C001	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C003	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C004	QETN0JM-477Z	E CAPACITOR	470uF 6.3V M	
C005	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C101	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C104	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C105	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C106	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C107	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C113	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C114	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C116	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	
C119	NDC31HJ-681X	C CAPACITOR	680pF 50V J	
C120	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C124	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C131	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C161	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C162	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C163	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C164	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C165	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C166	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C167	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C202	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C203	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C211	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C212	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C222	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C223	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C233	NDC31HJ-680X	C CAPACITOR	68pF 50V J	
C237	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C241	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C242	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C243	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M	
C244	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C281	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J	
C282	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C283	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C284	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C285	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C286	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C287	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C288	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C302	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C352	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C354	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C360	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C391	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C392	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C422	QFN32AK-102Z	M CAPACITOR	1000pF 100V K	
C424	QETN1VM-107Z	E CAPACITOR	100uF 35V M	
C425	QETN1VM-477Z	E CAPACITOR	470uF 35V M	
C427	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C428	QETM1EM-228	E CAPACITOR	2200uF 25V M	
C431	QFLC2AK-563Z	M CAPACITOR	0.056uF 100V K	
C433	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C435	NCB31HK-183X	C CAPACITOR	0.018uF 50V K	
C440	QCS32HJ-100Z	C CAPACITOR	10pF 500V J	
C501	QCB32HK-151Z	C CAPACITOR	150pF 500V K	
C502	QCB32HK-331Z	C CAPACITOR	330pF 500V K	

⚠Ref No.	Part No.	Part Name	Description	Local
C503	QEHR2CM-105Z	E CAPACITOR	1uF 160V M	
C504	QEZ0203-107	E CAPACITOR	100uF 160V M	
C507	QEZ0195-475Z	BP E CAPACITOR	4.7uF 50V M	
⚠C510	QFZ0200-382	MPP CAPACITOR	3800pF 1.5kV H	
⚠C513	QFZ0196-153	MPP CAPACITOR	0.015uF 1.5kV H	
C514	QFP32JJ-183	PP CAPACITOR	0.018uF 630V J	
C515	QFZ0197-514	MPP CAPACITOR	0.51uF 250V J	
C516	QCB32HK-561Z	C CAPACITOR	560pF 500V K	
C521	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C523	QEHR1VM-108Z	E CAPACITOR	1000uF 35V M	
C525	QETN1VM-107Z	E CAPACITOR	100uF 35V M	
C526	QFV21HJ-824Z	MF CAPACITOR	0.82uF 50V J	
C527	QFLC2AJ-103Z	M CAPACITOR	0.01uF 100V J	
C533	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C560	QFZ0197-304	MPP CAPACITOR	0.3uF 250V J	
C601	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	
C602	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C603	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C604	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C621	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C622	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C624	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C626	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C627	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C628	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C629	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C630	QETN1EM-227Z	E CAPACITOR	220uF 25V M	
C632	QETN1EM-477Z	E CAPACITOR	470uF 25V M	
C633	QETN1EM-227Z	E CAPACITOR	220uF 25V M	
C634	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C635	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C637	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C638	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C641	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C642	NCB31CK-273X	C CAPACITOR	0.027uF 16V K	
C643	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C644	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C645	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C646	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C647	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C648	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C649	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C651	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C652	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C655	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C656	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C657	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	
C658	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	
C659	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C660	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C661	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C662	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C700	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C701	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C702	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C703	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C704	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C705	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C708	NDC31HJ-220X	C CAPACITOR	22pF 50V J	
C709	NDC31HJ-220X	C CAPACITOR	22pF 50V J	
C711	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C712	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C728	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C807	QETN1AM-477Z	E CAPACITOR	470uF 10V M	
C815	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C853	QETN1EM-227Z	E CAPACITOR	220uF 25V M	
C854	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C856	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C857	QETN0JM-477Z	E CAPACITOR	470uF 6.3V M	
C861	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C862	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C863	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C864	NCB31HK-221X	C CAPACITOR	220pF 50V K	
⚠C901	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K	
⚠C902	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K	
⚠C903	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K	
⚠C904	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
⚠C905	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
⚠C906	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
C907	QEZ0644-567	E CAPACITOR	560uF 200V K	
⚠C908	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
C912	QCZ0340-222	C CAPACITOR	2200pF 2kV K	
C913	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	
C914	QETN1HM-107Z	E CAPACITOR	100uF 50V M	
C916	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C917	NCB31HK-182X	C CAPACITOR	1800pF 50V K	
C918	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C919	QFP32GJ-103	PP CAPACITOR	0.01uF 400V J	
C931	QEZ0203-227	E CAPACITOR	220uF 160V M	
C932	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C933	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C934	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C935	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	
C937	QCZ0340-102	C CAPACITOR	1000pF 2kV K	
C938	QETN1EM-477Z	E CAPACITOR	470uF 25V M	
C939	QCB32HK-152Z	C CAPACITOR	1500pF 500V K	
C941	QCB32HK-102Z	C CAPACITOR	1000pF 500V K	
C942	QEHR1HM-105Z	E CAPACITOR	1uF 50V M	
C943	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C951	QETN1EM-477Z	E CAPACITOR	470uF 25V M	
C952	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C971	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C972	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
⚠C997	QCZ9079-102	C CAPACITOR	1000pF AC250V M	
⚠C998	QCZ9074-103	C CAPACITOR	0.01uF AC250V M	
⚠C999	QCZ9074-103	C CAPACITOR	0.01uF AC250V M	
R003	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R004	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R005	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R006	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R008	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	
R009	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R101	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R102	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R103	QRE121J-101Y	C RESISTOR	100Ω 1/2W J	
R104	NRSA63J-180X	MG RESISTOR	18Ω 1/16W J	
R105	NRSA63J-270X	MG RESISTOR	27Ω 1/16W J	
R111	NRSA63J-394X	MG RESISTOR	390kΩ 1/16W J	
R112	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R113	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R115	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R116	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J	
R117	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R120	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R121	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R131	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R132	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R133	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R134	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R135	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R161	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R163	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R164	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R165	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R166	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R167	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R168	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R169	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R171	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R201	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R212	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R215	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R216	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R217	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R227	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R231	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R237	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R238	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R241	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R243	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R281	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R282	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R283	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R286	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R287	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R288	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	
R289	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J	
R290	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R292	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R293	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R296	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R297	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R298	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R301	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R302	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R303	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R304	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R305	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R306	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R318	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R319	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R354	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R355	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R356	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R359	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R421	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R423	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
R424	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
R426	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R427	QRT029J-1R2	MF RESISTOR	1.2Ω 2W J	
R428	QRE121J-120Y	C RESISTOR	12Ω 1/2W J	
R429	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R431	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R432	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R433	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R434	QRL029J-221	OMF RESISTOR	220Ω 2W J	
R435	QRE121J-102Y	C RESISTOR	1kΩ 1/2W J	
R441	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R502	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R503	QRE121J-103Y	C RESISTOR	10kΩ 1/2W J	
R504	QRL039J-152	OMF RESISTOR	1.5kΩ 3W J	
R505	QRL039J-152	OMF RESISTOR	1.5kΩ 3W J	
R511	QRE121J-220Y	C RESISTOR	22Ω 1/2W J	
R512	QRE121J-681Y	C RESISTOR	680Ω 1/2W J	
R516	QRZ0221-2R0	OMF RESISTOR	2Ω 7W K	
R524	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R526	QRE121J-272Y	C RESISTOR	2.7kΩ 1/2W J	
R527	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J	
R528	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J	
R529	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
⚠R531	QRZ0230-391X	UNF C RESISTOR	390Ω 1/4W J	
R532	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R533	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R534	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
⚠R535	NRVA02D-242X	CMF RESISTOR	2.4kΩ 1/10W D	
R536	QRE121J-470Y	C RESISTOR	47Ω 1/2W J	
⚠R537	NRVA02D-752X	CMF RESISTOR	7.5kΩ 1/10W D	
R538	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R543	QRE121J-122Y	C RESISTOR	1.2kΩ 1/2W J	
R544	QRE121J-472Y	C RESISTOR	4.7kΩ 1/2W J	
R545	QRE121J-123Y	C RESISTOR	12kΩ 1/2W J	
R546	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R547	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R548	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J	
R553	QRL039J-100	OMF RESISTOR	10Ω 3W J	
⚠R554	QRK129J-1R0	UNF C RESISTOR	1Ω 1/2W J	
R555	QRT029J-2R2	MF RESISTOR	2.2Ω 2W J	
R560	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J	
R561	QRE121J-562Y	C RESISTOR	5.6kΩ 1/2W J	
R562	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R563	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R601	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R602	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R603	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R621	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R623	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R624	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R626	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R627	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R628	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R630	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R631	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R641	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R642	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R643	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R644	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R645	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R646	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R647	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R648	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R649	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R651	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R652	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R653	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R654	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R655	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R657	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R659	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R700	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R701	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R702	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R704	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R705	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R706	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R708	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R709	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R718	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R721	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R729	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R731	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R732	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R733	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R734	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R739	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R740	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R764	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R765	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R766	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R767	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R769	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R772	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R811	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R816	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R821	NRSA63J-184X	MG RESISTOR	180kΩ 1/16W J	
R827	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R839	NRSA63J-225X	MG RESISTOR	2.2MΩ 1/16W J	
R855	QRL029J-820	OMF RESISTOR	82Ω 2W J	
R857	QRL029J-820	OMF RESISTOR	82Ω 2W J	
R860	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R861	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R862	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R864	NRSA63J-564X	MG RESISTOR	560kΩ 1/16W J	
R865	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R866	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R867	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R869	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R870	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R871	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R872	QVP0087-203Z	TRIM RESISTOR	20kΩ 0.3W N	
R873	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R901	QRF074K-1R2	UNF WW RESISTOR	1.2Ω 7W K	
R909	QRG01GJ-470	OMF RESISTOR	47Ω 1W J	
R911	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J	
R912	QRT029J-R18	MF RESISTOR	0.18Ω 2W J	
R913	QRT029J-R15	MF RESISTOR	0.15Ω 2W J	
⚠R914	QRK126J-681X	UNF C RESISTOR	680Ω 1/2W J	
R915	QRK129J-6R8	UNF C RESISTOR	6.8Ω 1/2W J	
⚠R917	QRK126J-332X	UNF C RESISTOR	3.3kΩ 1/2W J	
R918	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R919	QRE121J-684Y	C RESISTOR	680kΩ 1/2W J	
R924	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R930	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J	
R940	QRE121J-181Y	C RESISTOR	180Ω 1/2W J	
R941	QRL029J-183	OMF RESISTOR	18kΩ 2W J	
R950	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R951	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R952	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R953	QRE121J-820Y	C RESISTOR	82Ω 1/2W J	
R972	NRVA02D-102X	CMF RESISTOR	1kΩ 1/10W D	
R973	NRVA02D-332X	CMF RESISTOR	3.3kΩ 1/10W D	
R975	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J	
R977	QRE121J-473Y	C RESISTOR	47kΩ 1/2W J	
R978	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
⚠R998	QRZ9041-275	C RESISTOR	2.7MΩ 1/2W K	
R999	QRE121J-121Y	C RESISTOR	120Ω 1/2W J	
L001	QQL244K-560Z	PEAKING COIL	56uH K	
L101	QQLZ014-R39	COIL	0.39uH 100mA L	
L131	QQL29BJ-220Z	PEAKING COIL	22uH J	
L161	QQL29BJ-220Z	PEAKING COIL	22uH J	
L232	QQL244K-560Z	PEAKING COIL	56uH K	
L241	QQL244K-220Z	PEAKING COIL	22uH K	
L391	QQL244K-220Z	PEAKING COIL	22uH K	
L511	QQR1027-005	LINEARITY COIL		
L512	QQLZ036-222	COIL	2.2mH J	
L513	QQLZ036-222	COIL	2.2mH J	
L521	QQLZ026-540	COIL	54uH ±7%	
L701	QQL244K-220Z	PEAKING COIL	22uH K	
L702	QQL244K-220Z	PEAKING COIL	22uH K	
L703	QQL244K-220Z	PEAKING COIL	22uH K	
L704	QQL244K-220Z	PEAKING COIL	22uH K	
L705	QQL244K-220Z	PEAKING COIL	22uH K	
L931	QQL26AK-470Z	CHOKE COIL	47uH K	
L933	QQL26AK-470Z	CHOKE COIL	47uH K	
L937	QQL26AK-470Z	CHOKE COIL	47uH K	
L940	QQR0582-001Z	FERRITE BEADS		
T111	QQR0907-001	I F T		
T501	QQR1414-001	DRIVE TRANSF		
⚠T921	QQS0152-001	SW TRANSF		
⚠T951	QQT0355-001	POWER TRANSF		
CF001	QAX0349-001	C TRAP	47.25MHz	
CF131	QAX0639-001Z	C TRAP	4.500MHz	
CF161	QAX0642-001Z	C FILTER	4.500MHz	
CN001	QGB1505J1-35	CONNECTOR	B-B (1-35)	

⚠Ref No.	Part No.	Part Name	Description	Local
CN0E1	CE41507-001P	LV CONNECTOR		
CN0E3	CE41507-001P	LV CONNECTOR		
CP932	ICP-N70-T	IC PROTECTOR	2.5A	
CP933	ICP-N70-T	IC PROTECTOR	2.5A	
⚠CP936	ICP-N70-T	IC PROTECTOR	2.5A	
⚠F901	QMF51N1-5R0-J5	FUSE	5A AC125V	
⚠F905	QMFZ049-5R0Z-E	FUSE	5A 125V	
⚠FR525	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J	
HS001	LC32600-001A	HEAT SINK		
HS002	LC31678-001A	HEAT SINK/AL-F/		
HS003	LC32111-002A	HEAT SINK/AL-F/		
HS004	CEHE015-001WU	HEAT SINK		
HS005	CM42862-00G-H	HEAT SINK ASSY		
HS007	CEHT11B-002QS	HEAT SINK		
HS009	CEHT11B-002QS	HEAT SINK		
J601	QNN0349-002	PIN JACK	COMP IN	
K101	QQR0582-001Z	FERRITE BEADS		
K401	QQR0621-002Z	FERRITE BEADS		
K912	QQR0582-001Z	FERRITE BEADS		
K916	QQR0582-001Z	FERRITE BEADS		
K917	QQR0582-001Z	FERRITE BEADS		
K918	QQR0582-001Z	FERRITE BEADS		
K920	QQR1139-001	FERRITE BEADS		
K931	QQR0582-001Z	FERRITE BEADS		
K932	QQR0582-001Z	FERRITE BEADS		
K933	QQR0582-001Z	FERRITE BEADS		
K935	QQR0582-001Z	FERRITE BEADS		
K937	QQR0582-001Z	FERRITE BEADS		
LC601	QQR1459-001	EMI F. COIL		
LC602	QQR1459-001	EMI F. COIL		
LC603	QQR1459-001	EMI F. COIL		
⚠LF901	QQR1159-001	LINE FILTER		
⚠LF902	QQR0527-004	LINE FILTER		
⚠PC560	PC123Y22	PHOTO COUPLER		
⚠PC921	PC123Y22	PHOTO COUPLER		
⚠RY951	QSK0085-001	RELAY		
S421	QSL4A13-C02	LEVER SWITCH	V.CENTER	
SF101	QAX0723-001	SAW FILTER		
⚠TH901	QAD0132-3R0	P THERMISTOR	3Ω	
⚠TU001	QAU0305-001	TUNER		
⚠VA901	ERZV10V621CS	ZNR		
X701	QAX0767-001Z	CRYSTAL	8.000000MHz	

CRT SOCKET P.W. BOARD ASS'Y (SGW-3002A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
Q3103	2SC3928A/QR/-X	TRANSISTOR		
Q3107	2SA2005/DE/	POW TRANSISTOR		
Q3108	2SC5511/DE/	POW TRANSISTOR		
Q3109	2SC3928A/QR/-X	TRANSISTOR		
Q3304	2SC4544-LB	POW TRANSISTOR		
Q3305	2SC4544-LB	POW TRANSISTOR		
Q3306	2SC4544-LB	POW TRANSISTOR		
Q3351	2SA1530A/QR/-X	TRANSISTOR		
D3105	RH1S-T3	SI DIODE		
D3106	RH1S-T3	SI DIODE		
D3311	MTZJ3.6B-T2	Z DIODE		
D3312	1SS133-T2	DIODE		
D3313	MTZJ3.6B-T2	Z DIODE		
D3314	1SS133-T2	DIODE		
D3331	1SS133-T2	DIODE		
D3351	1SS133-T2	DIODE		
D3352	1SS133-T2	DIODE		
D3353	1SS133-T2	DIODE		
D3354	1SS133-T2	DIODE		
C3101	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3109	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C3113	QETN2CM-106Z	E CAPACITOR	10uF 160V M	
C3114	QCB32HK-472Z	C CAPACITOR	4700pF 500V K	
C3115	QCB32HK-472Z	C CAPACITOR	4700pF 500V K	
C3117	QETN2CM-106Z	E CAPACITOR	10uF 160V M	
C3118	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	
C3119	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C3120	QETN1AM-337Z	E CAPACITOR	330uF 10V M	
C3121	QCS32HJ-151Z	C CAPACITOR	150pF 500V J	
C3127	NDC31HJ-471X	C CAPACITOR	470pF 50V J	
C3301	NDC31HJ-561X	C CAPACITOR	560pF 50V J	
C3302	NDC31HJ-391X	C CAPACITOR	390pF 50V J	
C3303	NDC31HJ-561X	C CAPACITOR	560pF 50V J	
C3323	QETN1CM-107Z	E CAPACITOR	100uF 16V M	

⚠Ref No.	Part No.	Part Name	Description	Local
C3331	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
C3332	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
C3333	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
C3351	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C3363	QCZ0121-102	C CAPACITOR	1000pF 3KV Z	
R3115	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3116	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3122	QRT029J-R15	MF RESISTOR	0.15Ω 2W J	
R3123	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R3124	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	
R3125	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3126	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R3127	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R3128	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R3129	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3130	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	
R3131	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R3132	QRL029J-391	OMF RESISTOR	390Ω 2W J	
R3134	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3136	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R3139	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R3142	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R3143	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R3144	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3145	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3146	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3148	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3301	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3302	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3303	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3304	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3305	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3306	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3307	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3308	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3309	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3310	QRL029J-183	OMF RESISTOR	18kΩ 2W J	
R3311	QRL029J-183	OMF RESISTOR	18kΩ 2W J	
R3312	QRL029J-183	OMF RESISTOR	18kΩ 2W J	
R3313	QRL029J-223	OMF RESISTOR	22kΩ 2W J	
R3314	QRL029J-223	OMF RESISTOR	22kΩ 2W J	
R3315	QRL029J-223	OMF RESISTOR	22kΩ 2W J	
R3325	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	
R3326	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	
R3327	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	
R3331	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3332	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3333	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3334	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R3335	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R3351	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3354	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
L3304	QQL244K-470Z	PEAKING COIL	47uH K	
L3521	QQLZ026-540	COIL	54uH ±7%	
CN3004	QJB003-074022	SIN ID C-B WIRE		
CN3005	WJA0029-002A	E-SI ID WIRE		
CN30E2	QUB130-46A6AS	SIN TWIST WIRE		
CN30E4	QUB130-46A6AS	SIN TWIST WIRE		
K3104	QQR1114-001Z	FERRITE BEADS		
K3105	QQR1114-001Z	FERRITE BEADS		
⚠SK3001	QNZ0536-001	CRT SOCKET		

AV SELECTOR P.W. BOARD ASS'Y (SGW-5001A-M2)

REFER TO PARTS LIST IN PAGE 3-9 FOR THIS P.W. BOARD.

SIDE CONTROL P.W. BOARD ASS'Y (SGW-6001A-M2)

REFER TO PARTS LIST IN PAGE 3-11 FOR THIS P.W. BOARD.

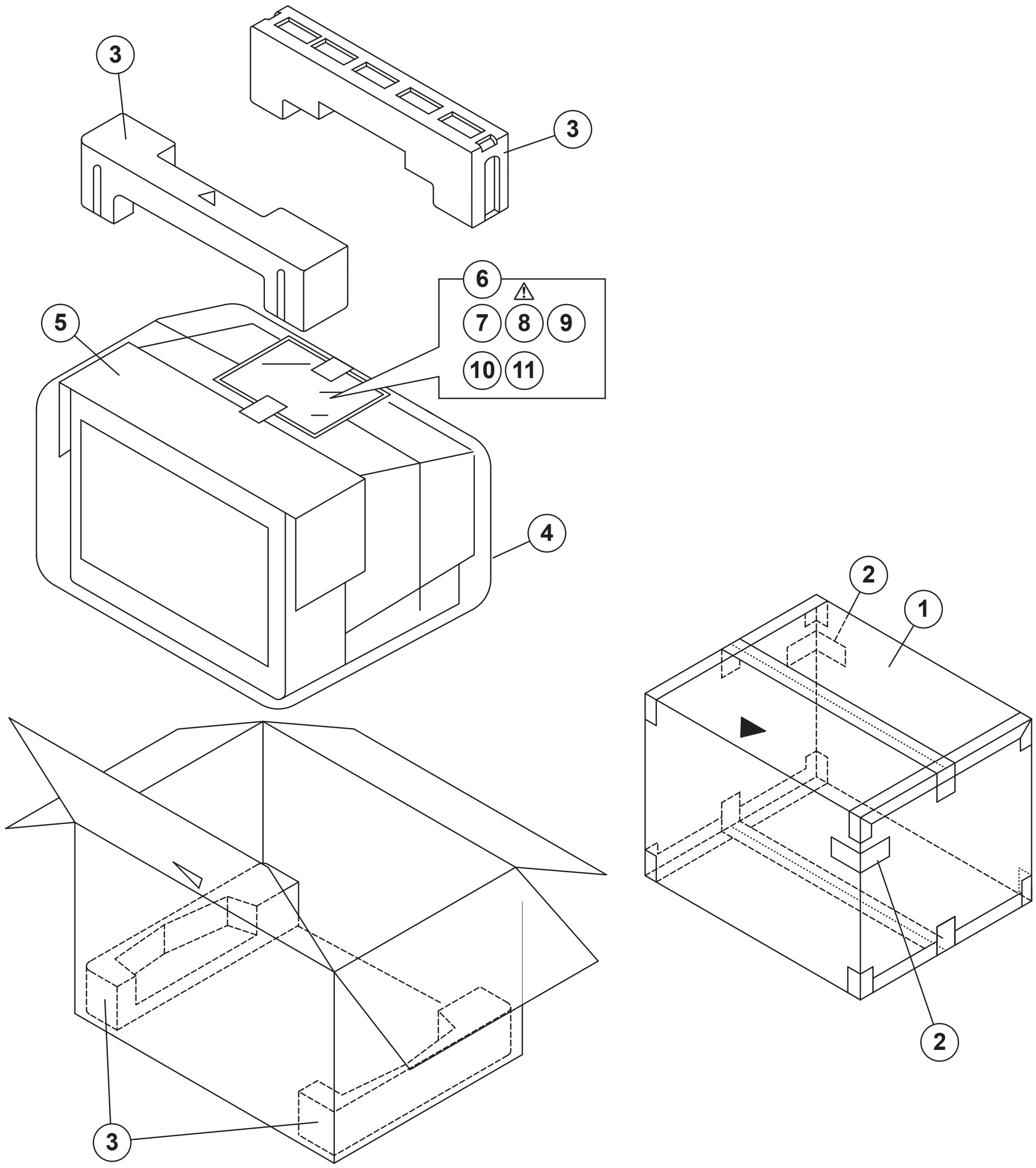
FRONT CONTROL P.W. BOARD ASS'Y (SGW-7001A-M2)

REFER TO PARTS LIST IN PAGE 3-11 FOR THIS P.W. BOARD.

REMOTE CONTROL UNIT PARTS LIST (RM-C1258G-1H)

⚠ Ref No.	Part No.	Part Name	Description	Local
	UR77EC0603B	BATTERY COVER		

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	GQ10009-032A-A	PACKING CASE		
	2	CM36616-001-A	CORNER LABEL	2pcs in 1set	
	3	GQ10076-001A-A	CUSHION ASSY	4pcs in 1set	
	4	CP30056-A04-A	POLY BAG		
	5	CP30055-A02-A	TOP COVER		
	6	QPA02503505	POLY BAG	25cm x 35cm	
	7	RM-C1258G-1H	REMOCON		
⚠	8	LCT1647-001A-A	INST BOOK	English/French	
	9	------------	BATTERY	R6P/AA(x2)	
	10	BT-51034-2Q	REGIST. CARD		
	11	BT-52006-2Q	WARRANTY CARD		

SCHEMATIC DIAGRAMS

COLOR TELEVISION

AV-30W475 /S, AV-30W475 /Y

CD-ROM No.SML200408

BASIC CHASSIS
GW



No.YA095
2004/7

AV-30W475/S, AV-30W475/Y

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	: DC 20kΩ/V
(4)Oscilloscope sweeping time	: H ⇒ 20μs / div
	: V ⇒ 5ms / div
	: Oththers ⇒ Sweeping time is specified
(5)Voltage values	: All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R1209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	: [Ω]
K	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
Others	: DC withstand voltage [V]
AC indicated	: AC withstand voltage [V]

∗ Electrolytic Capacitors
47/50[Example]: Capacitance value [μF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3)Coils

No unit	: [μH]
Others	: As specified

(4)Power Supply

: B1 : B2 (12V)

: 9V : 5V

∗ Respective voltage values are indicated

(5)Test point

: Test point : Only test point display

(6)Connecting method

: Connector : Wrapping or soldering

: Receptacle

(7)Ground symbol

⊥ : LIVE side ground
: ISOLATED(NEUTRAL) side ground
⏚ : EARTH ground
: DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : ( ) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time.
If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

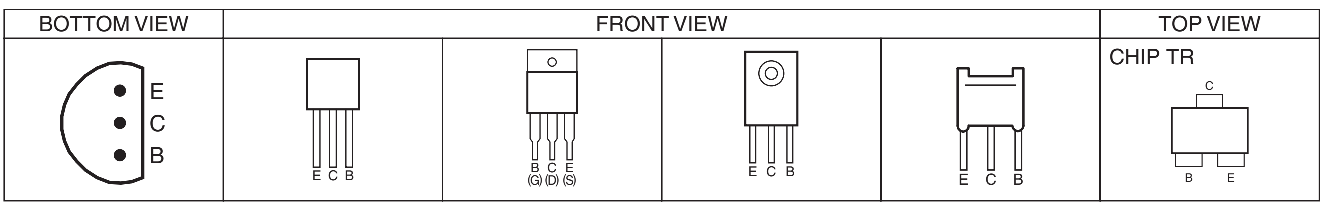
NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

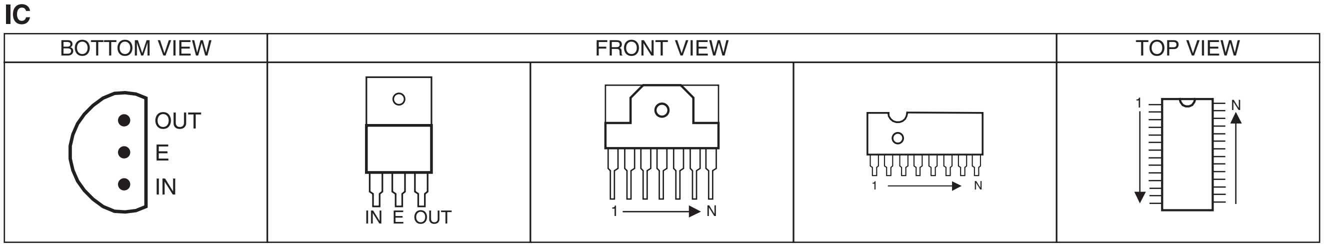
CONTENTS

SEMICONDUCTOR SHAPES

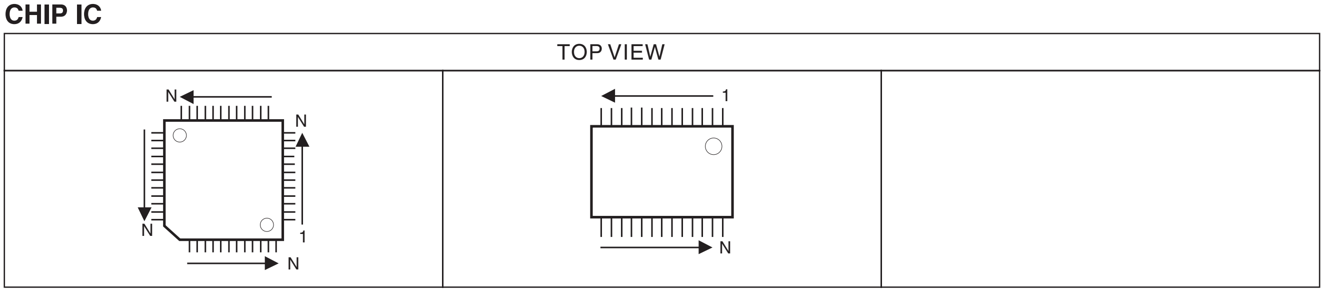
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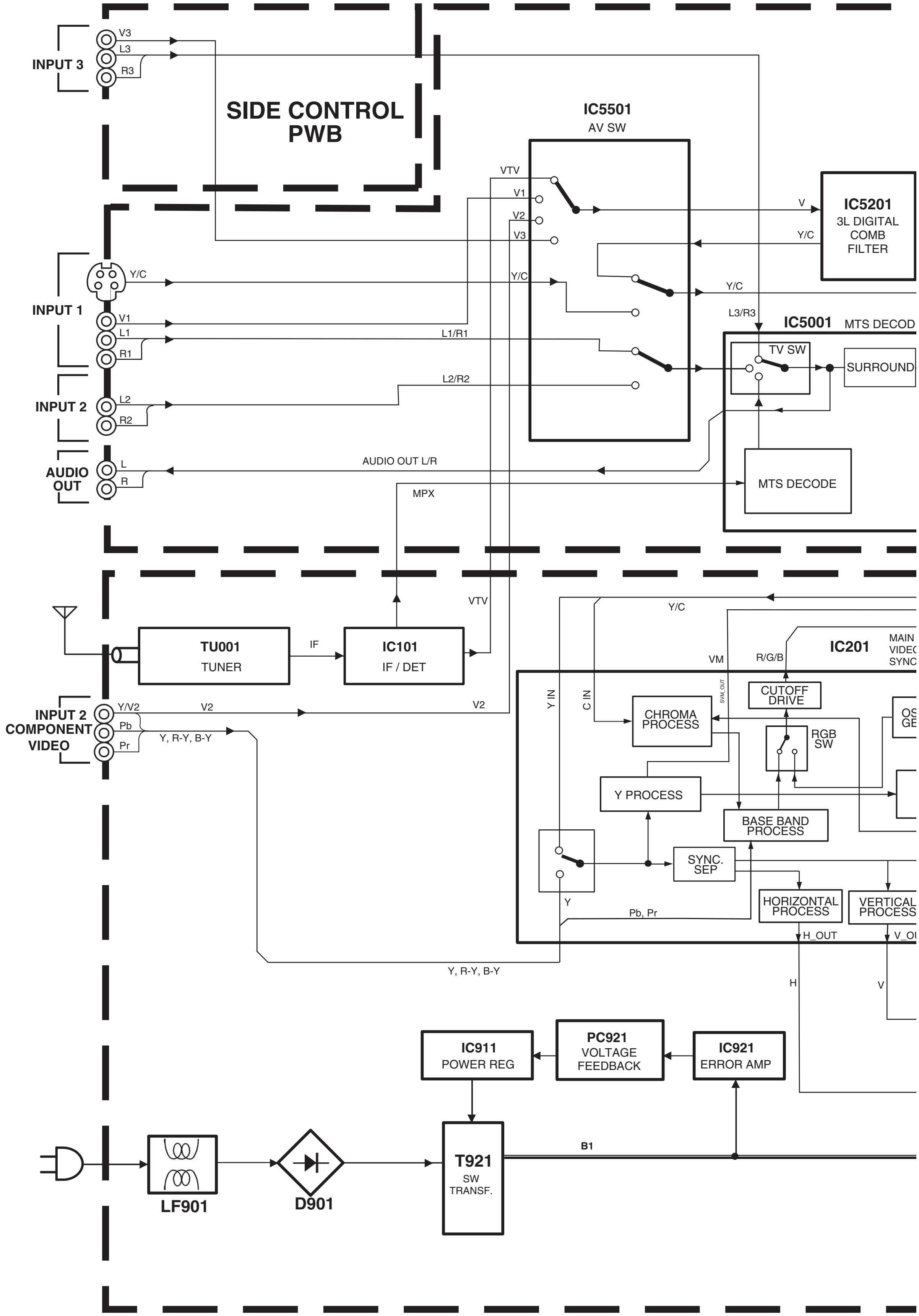
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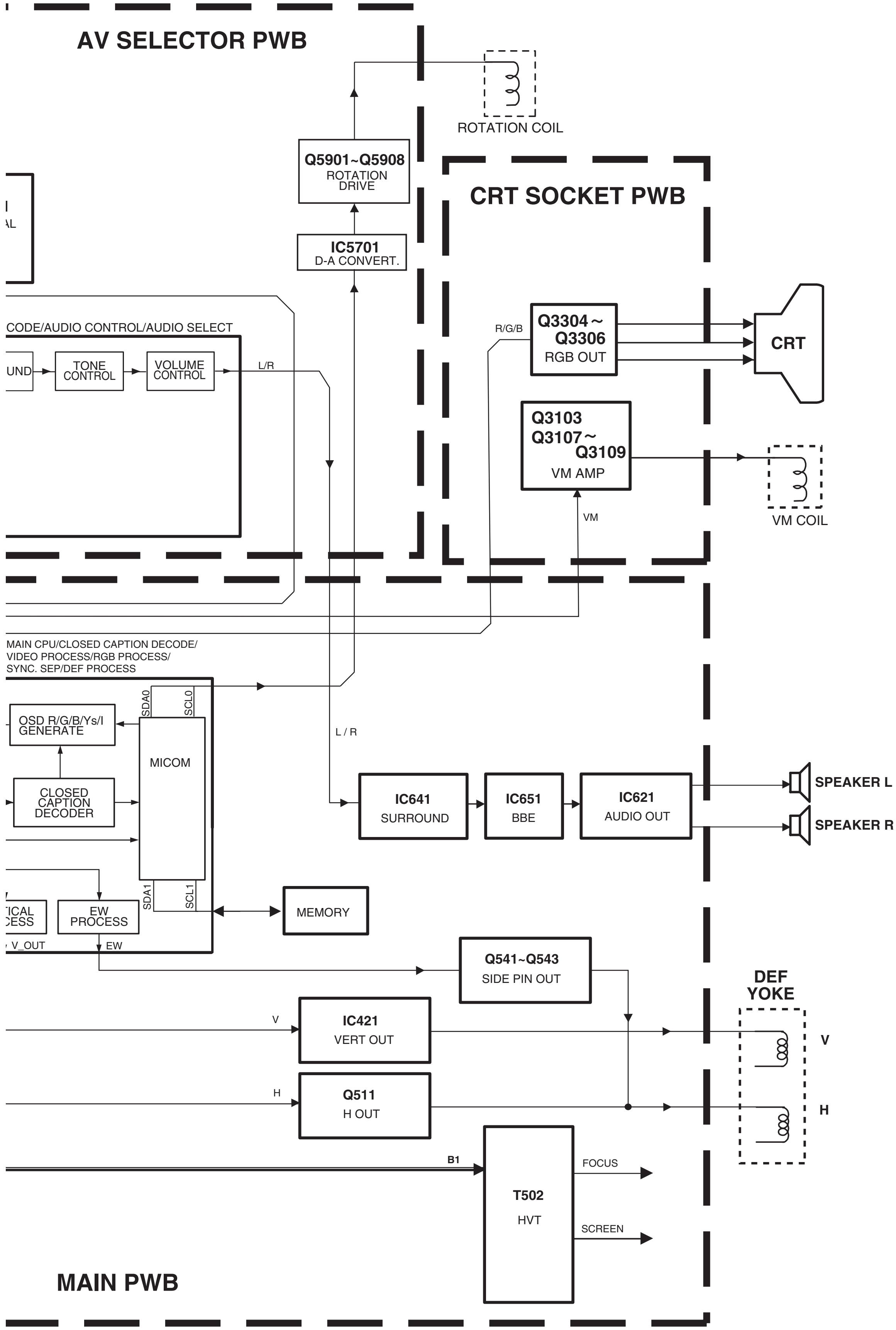


CHIP IC



BLOCK DIAGRAM

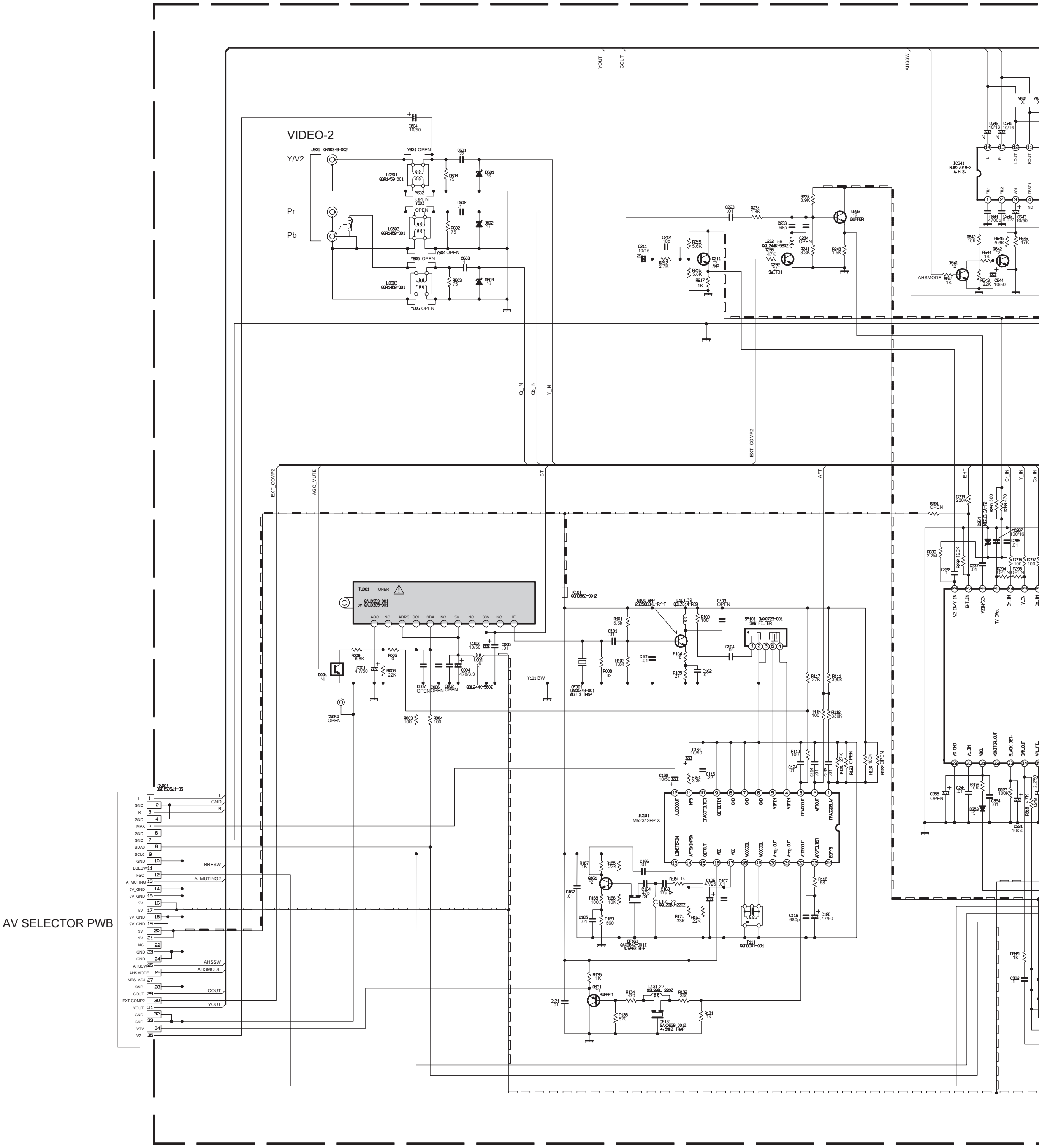




AV SELECTOR PWB
ROTATION COIL
Q5901~Q5908
ROTATION DRIVE
IC5701
D-A CONVERT.
CRT SOCKET PWB
CODE/AUDIO CONTROL/AUDIO SELECT
UND
TONE CONTROL
VOLUME CONTROL
L/R
R/G/B
Q3304～Q3306
RGB OUT
CRT
Q3103
Q3107～Q3109
VM AMP
VM
VM COIL
MAIN CPU/CLOSED CAPTION DECODE/
VIDEO PROCESS/RGB PROCESS/
SYNC. SEP/DEF PROCESS
OSD R/G/B/Ys/I GENERATE
SDA0
SCL0
MICOM
CLOSED CAPTION DECODER
L / R
IC641
SURROUND
IC651
BBE
IC621
AUDIO OUT
SPEAKER L
SPEAKER R
SDA1
SCL1
EW PROCESS
MEMORY
V_OUT
EW
Q541~Q543
SIDE PIN OUT
DEF YOKE
V
IC421
VERT OUT
V
H
Q511
H OUT
H
B1
T502
HVT
FOCUS
SCREEN
MAIN PWB

CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/2)



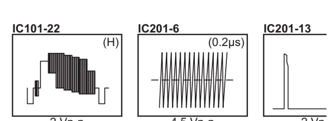
NOTE

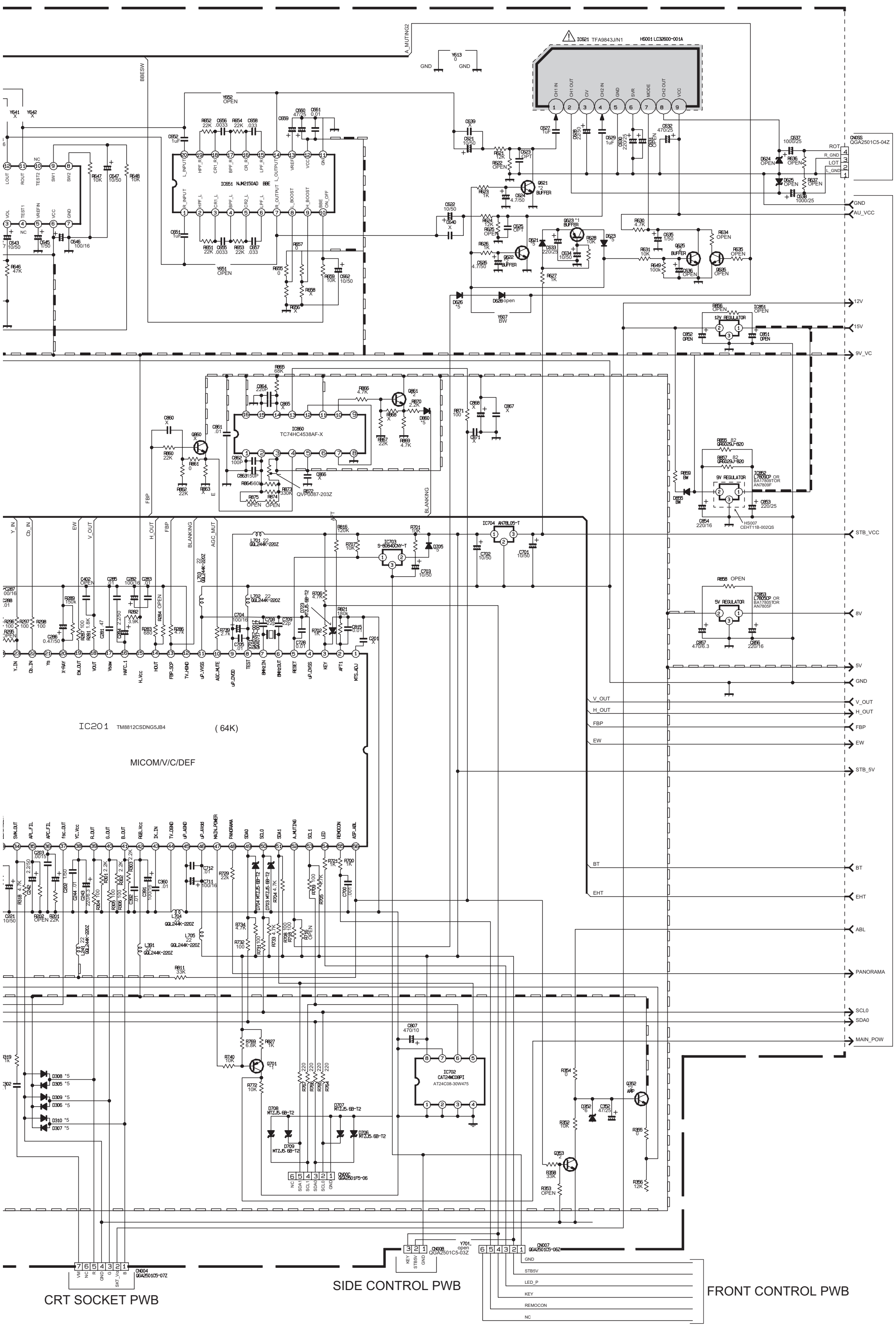
*1 : CHIP PNP Tr	2SA1530A/QR/-X	OR 2SB709A/QR/-X	BW	:	BUS WIRE
*2 : CHIP NPN Tr	2SC3928A/QR/-X	OR 2SD601A/QR/-X	X	:	NON-MOUNT(OPEN)
*3 : CHIP PNP D-Tr	DTA124EKA-X	OR UN2112-X	⚠	:	SAFETY PARTS
*4 : CHIP NPN D-Tr	DTC124EKA-X	OR UN2212-X	0	:	0 Ω RESISTOR
*5 : SI DIODE	1SS133-T2		*	:	DIFFERENCE PARTS
*6 : ZENER DIODE	MTZJ9.1C-T2				
*7 : ZENER DIODE	MTZJ5.6A-T2				
*8 : SI DIODE	RGP10J-5025-T3				
*9 : SI DIODE	1SR35-400A-T2	OR 1N4003-T2			
*10:PNP TE	25A933AS/QR/_3				
*11:SI DIODE	RGP10J-04TS-T3				

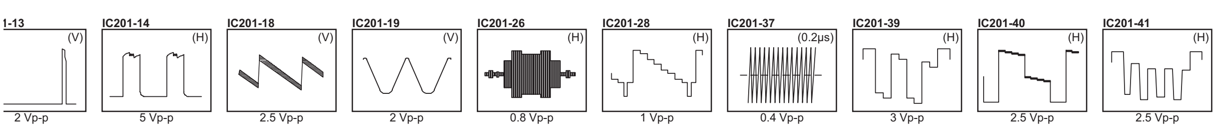
MAIN PWB ASS'Y

SGW-1001A-M2 : AV-30W475/S

SGW-1002A-M2 : AV-30W475/Y



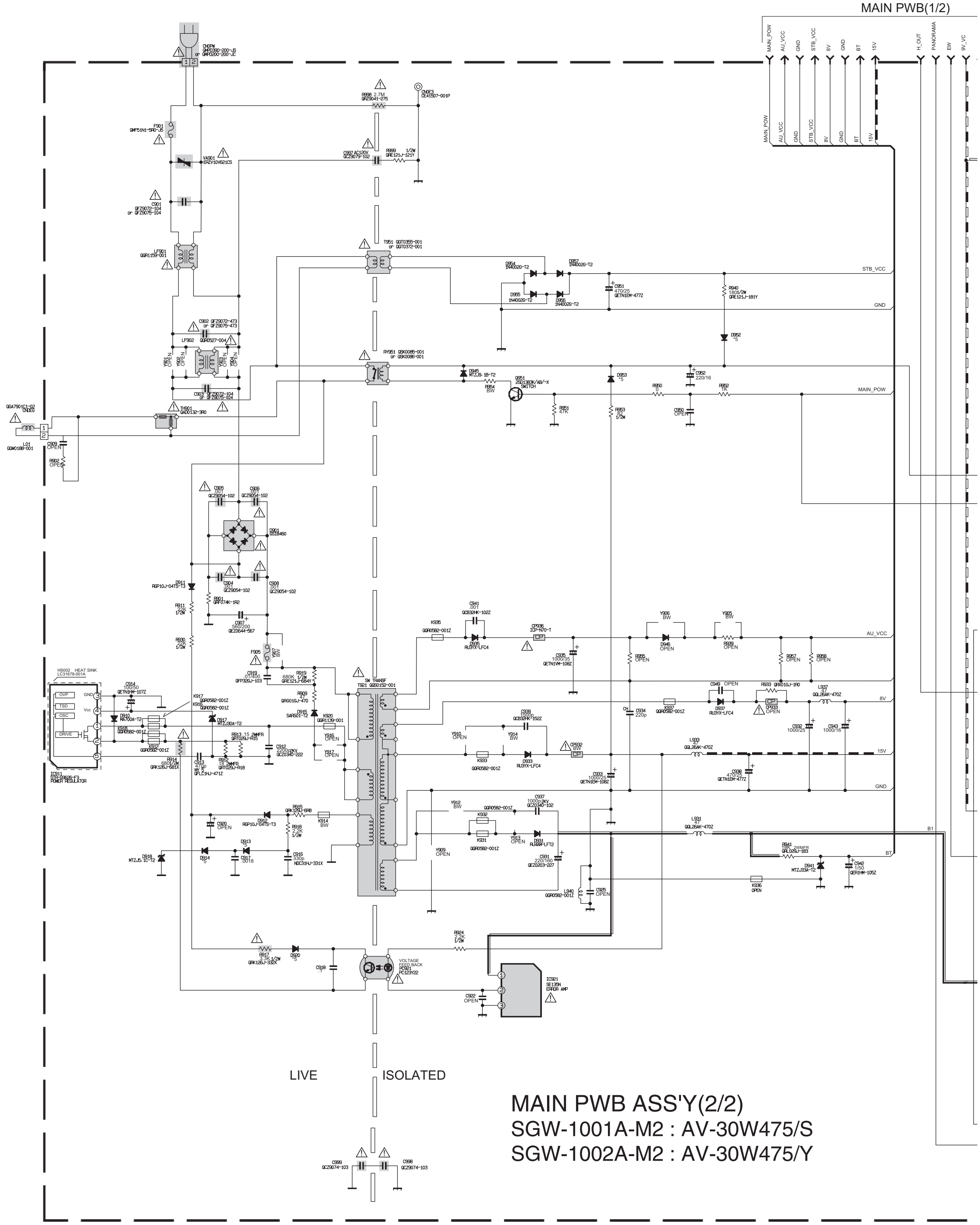




MODE PIN NO.	DC (V)
IC101	
1	2
2	2.5
3	3.9
4	1.4
5	1.4
6	0
7	0
8	0
9	0
10	4.2
11	2.5
12	4.2
13	2.1
14	3.5
15	2.1
16	8.8
17	8.8
18	3.9
19	3.9
20	4.8
21	4.8
22	3.3
23	3.3
24	2.1
IC201	
1	0
2	1.5
3	4.7
4	0
5	5
6	2.2
7	2
8	0
9	5
10	0
11	0
12	0
13	1.1
14	1.9
15	8.8
16	6.3
17	3.5
18	4.2
19	4.5
20	0
21	0
22	2.1
23	2.3
24	2.1
25	3.5
26	2.2
27	3.5
28	2.4
29	0
30	2.2
31	6.1
32	0
33	1.9
34	3.5
35	1.7
36	2.7
37	2.8
38	4.8
39	2
40	1.9
41	1.9
42	8.8
43	4.3
44	0
45	0
46	5
47	0
48	0
49	3.9
50	3.7
51	4.8
52	0
53	4.7
54	0
55	4.9
56	0
IC621	
1	3.1
2	10
3	3.1
4	3.1
5	0
6	11.4
7	19.3
8	10
9	19.8
IC641	
1	4.4
2	4.4
3	4.4
4	4.4
5	4.4
6	8.8
7	0
8	0
9	0.1
10	4.4
11	4.4
12	4.4
13	4.4
14	4.4
IC651	
1	4.4
2	4.4
3	4.4
4	4.4
5	4.4
6	4.4
7	4.4
8	8.8
9	8.8
10	1.6
11	0
12	8.8
13	4.4
14	4.4
15	4.4
16	4.4
17	4.4

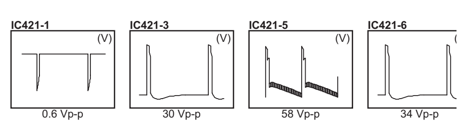
MODE PIN NO.	DC (V)
18	4.4
19	4.4
20	4.4
IC702	
1	0
2	0
3	0
4	0
5	4.8
6	4.7
7	0
8	5
IC703	
1	0
2	5
3	5
IC704	
1	12.5
2	0
3	4.7
IC852	
1	15.6
2	8.8
3	0
IC853	
1	7.9
2	4.9
3	0
IC860	
1	0
2	2
3	4.9
4	0.8
5	4.9
6	4.7
7	0.2
8	0
9	4.9
10	0
11	4.9
12	0.2
13	0
14	4.9
15	0
16	4.9
Q001	
E	0
C	3.9
B	0
Q101	
E	1
C	8.8
B	1.7
Q131	
E	2.2
C	0
B	1.6
Q161	
E	2
C	5.7
B	2.7
Q211	
E	3.7
C	8.8
B	0
Q232	
E	0
C	0.9
B	0.1
Q233	
E	3.3
C	8.8
B	4
Q352	
E	8.1
C	8.8
B	9
Q353	
E	0
C	9
B	0
Q621	
E	0
C	0.2
B	0
Q622	
E	0
C	0.2
B	0
Q623	
E	10.3
C	-0.9
B	10.4
Q625	
E	0
C	19.3
B	0
Q641	
E	0
C	1.3
B	0.1
Q642	
E	0
C	0
B	0.7
Q701	
E	3.7
C	2.4
B	3
Q861	
E	0
C	4.9
B	0
TU001	
1	3.9
2	0
3	4.8
4	3.7
5	3.9
6	4.7
7	4.8
8	0
9	31.4
10	0
11	0

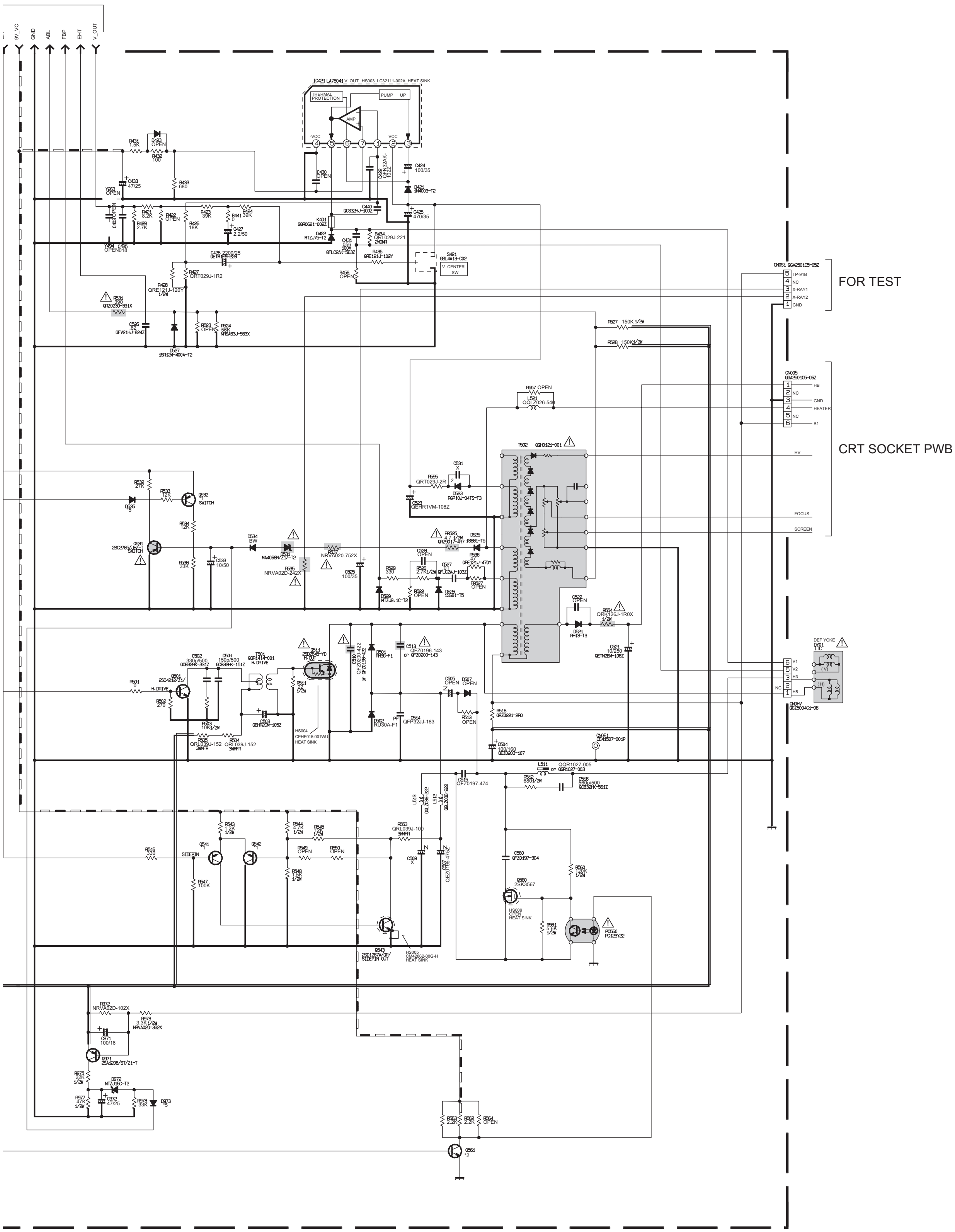
MAIN PWB CIRCUIT DIAGRAM (2/2)



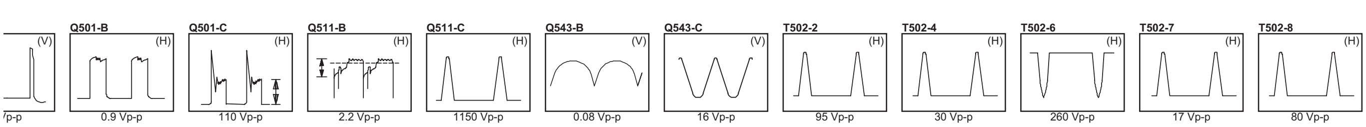
NOTE

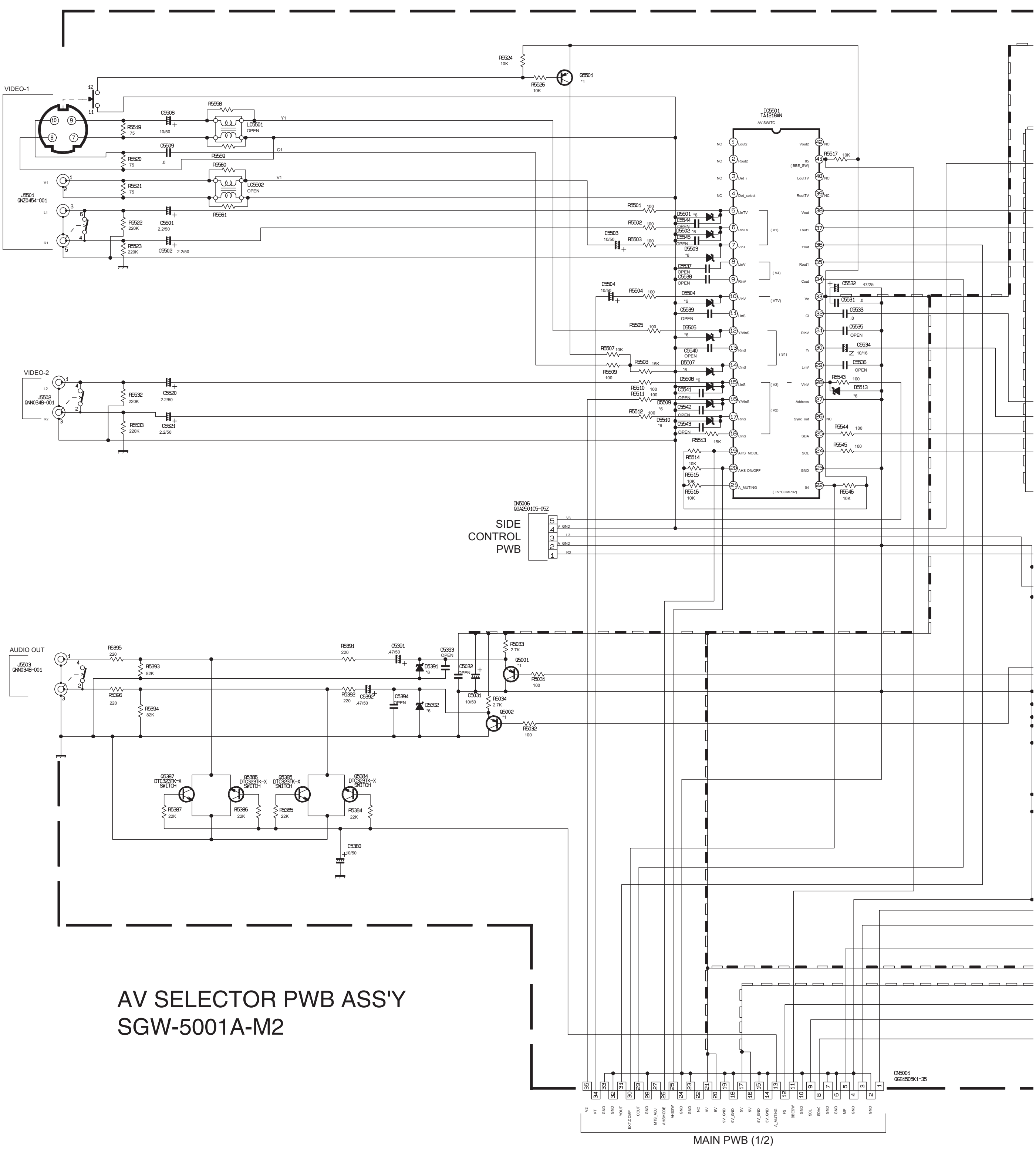
*1 : CHIP PNP Tr	2SA1530A/QR/-X	OR 2SB709A/QR/-X	BW	:	BUS WIRE
*2 : CHIP NPN Tr	2SC3928A/QR/-X	OR 2SD601A/QR/-X	X	:	NON-MOUNT(OPEN)
*3 : CHIP PNP D-Tr	DTA124EKA-X	OR UN2112-X	⚠	:	SAFETY PARTS
*4 : CHIP NPN D-Tr	DTC124EKA-X	OR UN2212-X	0	:	0 RESISTOR
*5 : SI DIODE	1SS133-T2		*	:	DIFFERENCE PARTS
*6 : ZENER DIODE	MTZJ9.1C-T2				
*7 : ZENER DIODE	MTZJ5.6A-T2				
*8 : SI DIODE	RGP10J-5025-T3				
*9 : SI DIODE	1SR35-400A-T2	OR 1N4003-T2			
*10:PNP TE	25A933AS/QR/_3				
*11:SI DIODE	RGP10J-04TS-T3				

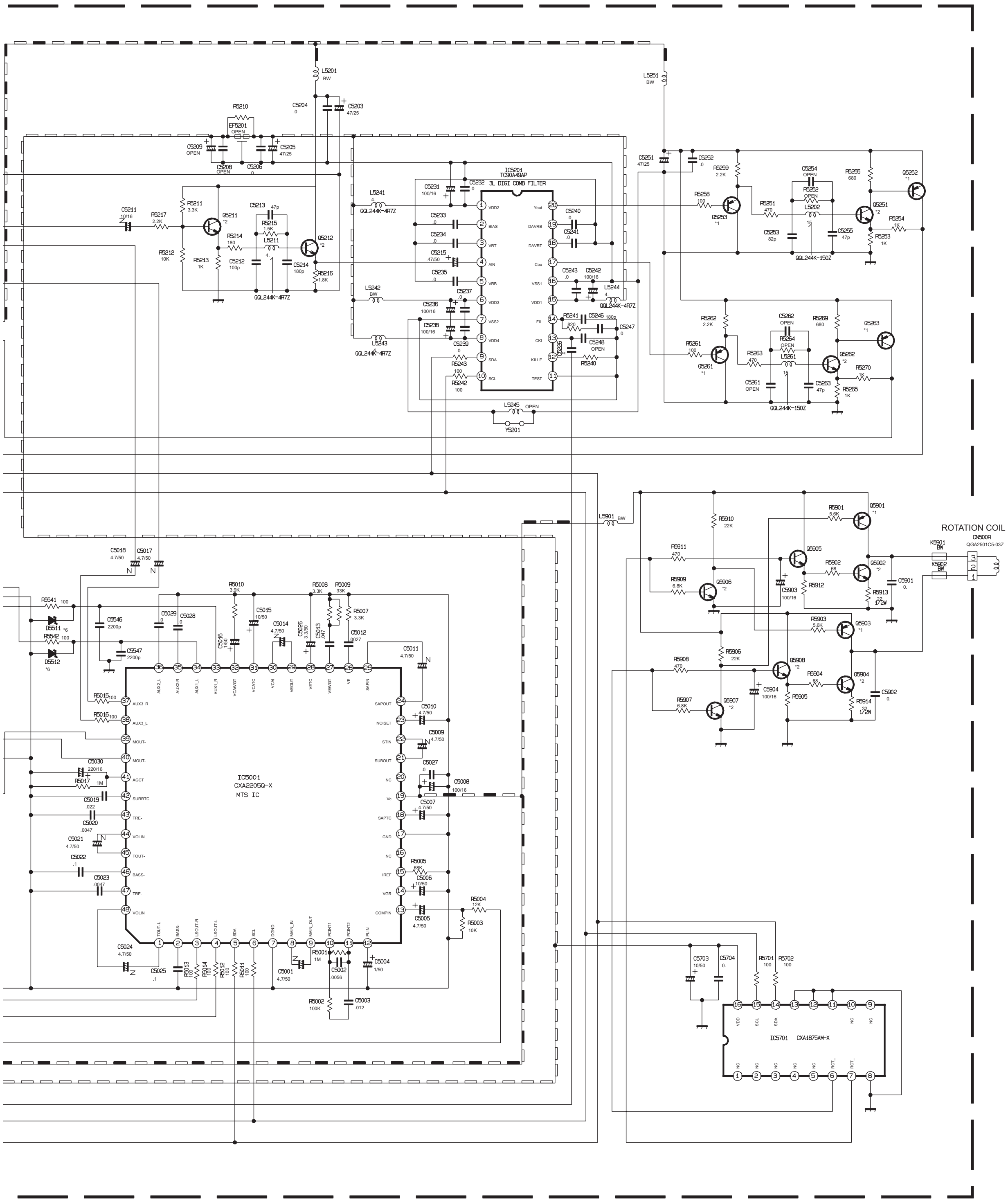




PIN NO.	DC (V)
IC421	
1	2.6
2	27.9
3	2.5
4	0
5	14.5
6	28.3
7	2.6
IC911	
1	130.5
2	0.1
3	0
4	18.3
5	1.7
IC921	
1	134.7
2	13.1
3	0
Q501	
E	0
C	58.7
B	0.4
Q511	
E	0
C	-0.1
B	133
Q531	
E	0
C	9.8
B	0
Q532	
E	9.9
C	0
B	9.8
Q541	
E	5
C	0.5
B	4.4
Q542	
E	5
C	0
B	4.4
Q543	
E	0
C	19.3
B	0.6
Q560	
S	24
D	92.6
G	23.7
Q561	
E	0
C	1.1
B	0
Q951	
E	0
C	0.6
B	1.3
Q971	
E	134.6
C	0
B	134.2
PC560	
1	1.1
2	0
3	24
4	23.7
PC921	
1	14
2	13
3	1.7
4	16.6



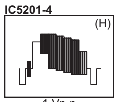

VIDEO-1
VIDEO-2
AUDIO OUT
IC5501
TA1218AN
SIDE
CONTROL
PWB
AV SELECTOR PWB ASS'Y
SGW-5001A-M2
MAIN PWB (1/2)
CN5001
CN5006



MODE PIN NO.	DC (V)
IC5001	
1	4
2	4.1
3	4
4	4
5	3.9
6	3.7
7	0
8	4
9	4
10	4
11	3.9
12	5.1
13	4
14	1.2
15	0
16	0
17	0
18	3
19	8.8
20	0
21	0
22	4
23	4.1
24	3.8
25	4
26	3.9
27	4
28	1.7
29	4
30	4
31	1.6
32	4
33	4
34	4
35	4
36	4
37	4
38	4
39	4
40	4
41	0.6
42	4
43	0
44	4
45	4
46	0
47	4
48	4
IC5201	
1	4.5
2	1.3
3	3.1
4	2.3
5	1.8
6	4.9
7	0
8	4.9
9	3.9
10	3.7
11	0
12	0
13	2.5
14	1.8
15	4.9
16	0
17	2.3
18	3.1
19	1.8
20	2.3
IC5501	
1	NC
2	NC
3	NC
4	NC
5	5.1
6	5.1
7	5.1
8	5.1
9	5.1
10	5.1
11	5.1
12	5.1
13	5.1
14	1.7
15	5.1
16	5.1
17	5.1
18	1.7
19	0.1
20	0.1
21	0
22	0.1
23	0
24	3.7
25	3.9
26	0.7
27	0
28	5.1
29	5.1
30	5.1
31	5.1
32	5
33	8.8
34	3.6
35	3.8
36	3.6
37	3.8
38	4.3
39	3.8
40	3.8

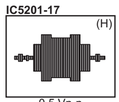
MODE PIN NO.	DC (V)
41	8.2
42	4.3
IC5701	
1	NC
2	NC
3	NC
4	NC
5	NC
6	0.4
7	0.4
8	0
9	NC
10	NC
11	0
12	0
13	0
14	4.3
15	4.2
16	4.9
Q5001	
E	4.7
C	0
B	4
Q5002	
E	4.7
C	0
B	4
Q5211	
E	5.9
C	8.8
B	6.6
Q5212	
E	5.2
C	8.8
B	5.9
Q5251	
E	2.4
C	8.1
B	3
Q5252	
E	8.8
C	3.9
B	8.1
Q5253	
E	3
C	0
B	2.3
Q5261	
E	3
C	0
B	2.3
Q5262	
E	2.4
C	8.1
B	3
Q5263	
E	8.8
C	3.9
B	8.1
Q5384	
E	0
C	0
B	0
Q5385	
E	0
C	0
B	0
Q5386	
E	0
C	0
B	0
Q5387	
E	0
C	0
B	0
Q5501	
E	8.8
C	1.7
B	8.8
Q5901	
E	8.8
C	0
B	8.8
Q5902	
E	0
C	0.1
B	0.1
Q5903	
E	8.8
C	0.1
B	8.8
Q5904	
E	0
C	0
B	0.1
Q5905	
E	0.1
C	8.8
B	0.4
Q5906	
E	0
C	8.8
B	0.4
Q5907	
E	0
C	8.8
B	0.4
Q5908	
E	0.1
C	8.8
B	0.4

IC5201-4



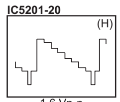
1 Vp-p

IC5201-17



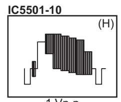
0.5 Vp-p

IC5201-20



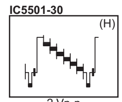
1.6 Vp-p

IC5501-10



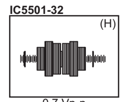
1 Vp-p

IC5501-30



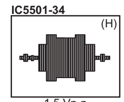
2 Vp-p

IC5501-32



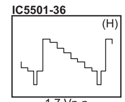
0.7 Vp-p

IC5501-34



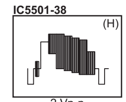
1.5 Vp-p

IC5501-36



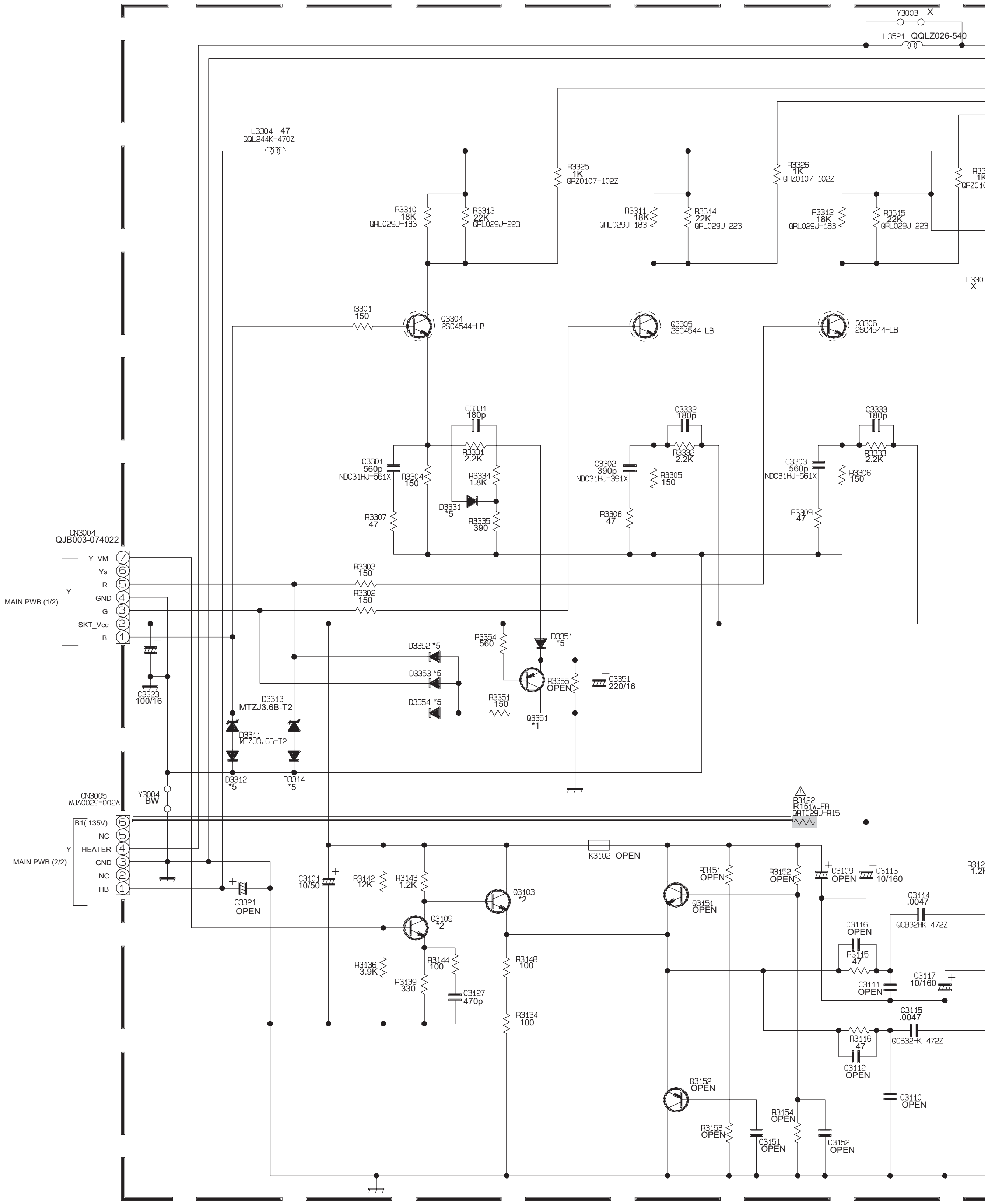
1.7 Vp-p

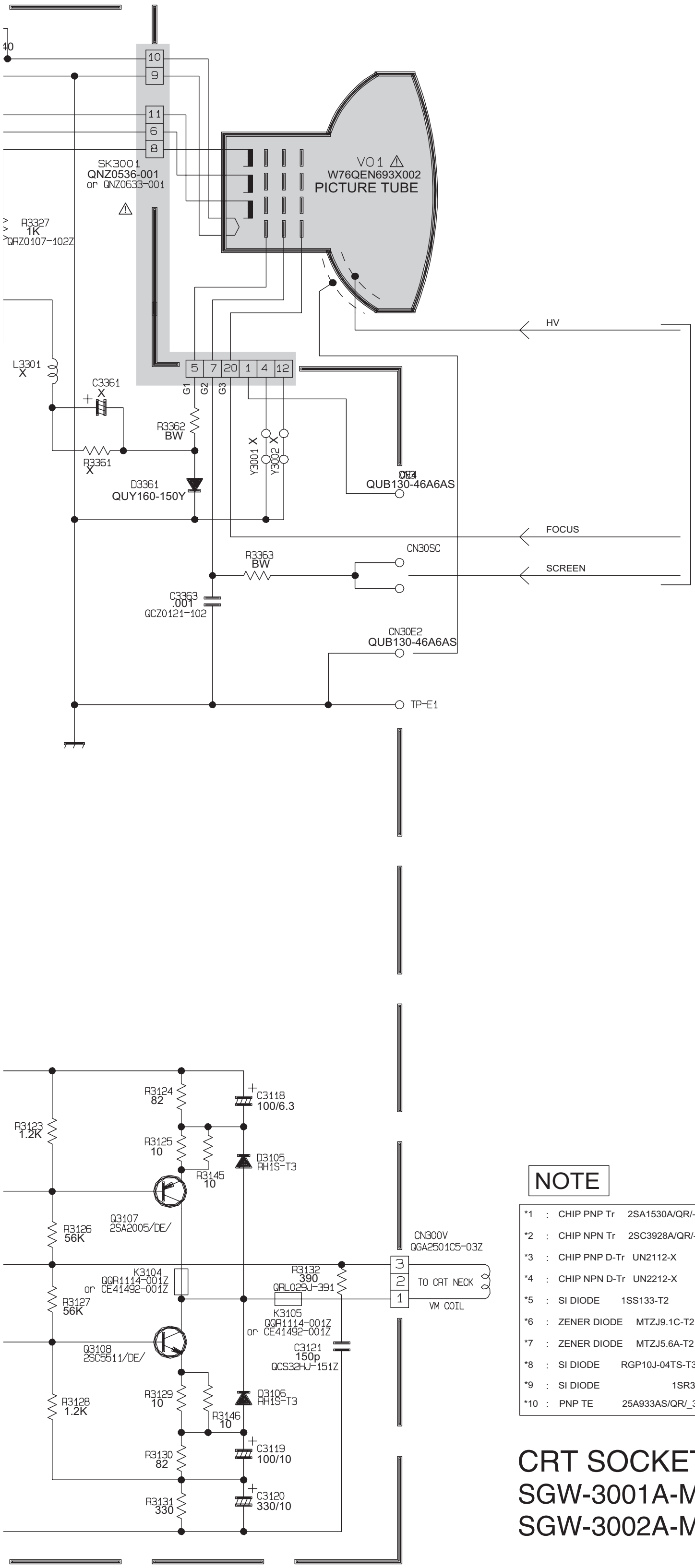
IC5501-38



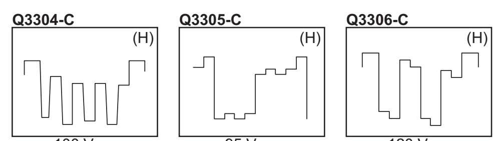
2 Vp-p

CRT SOCKET PWB CIRCUIT DIAGRAM





PIN NO.	DC (V)
Q3103	
E	3.3
C	11.9
B	0
Q3107	
E	132.6
C	69.9
B	132.2
Q3108	
E	4.5
C	69.5
B	5.1
Q3109	
E	2.2
C	4.1
B	2.8
Q3304	
E	1.5
C	160.5
B	2
Q3305	
E	1.6
C	159.8
B	2
Q3306	
E	1.6
C	156
B	2.1
Q3351	
E	11.8
C	-1
B	11.9



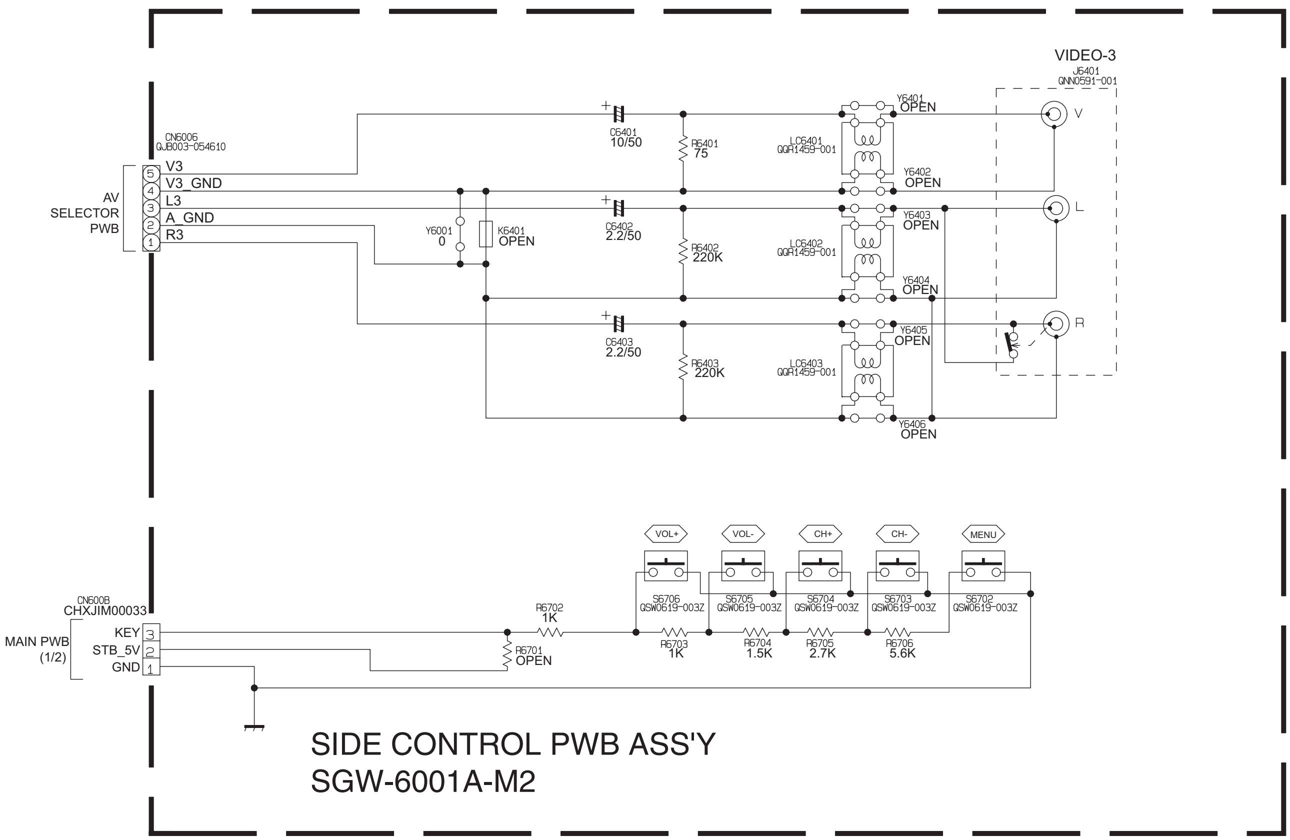
NOTE

*1	:	CHIP PNP Tr 2SA1530A/QR/-X OR 2SB709A/QR/-X	BW	:	BUS WIRE
*2	:	CHIP NPN Tr 2SC3928A/QR/-X OR 2SD601A/QR/-X	X	:	NON-MOUNT(OPEN)
*3	:	CHIP PNP D-Tr UN2112-X OR DTC124EKA-X	⚠	:	SAFETY PARTS
*4	:	CHIP NPN D-Tr UN2212-X OR DTC124EKA-X	0	:	0 RESISTOR
*5	:	SI DIODE 1SS133-T2	*	:	DIFFERENCE PARTS
*6	:	ZENER DIODE MTZJ9.1C-T2			
*7	:	ZENER DIODE MTZJ5.6A-T2			
*8	:	SI DIODE RGP10J-04TS-T3 OR RGP10J-5025-T3			
*9	:	SI DIODE 1SR35-400A-T2 OR 1N4003-T2			
*10	:	PNP TE 25A933AS/QR/_3			

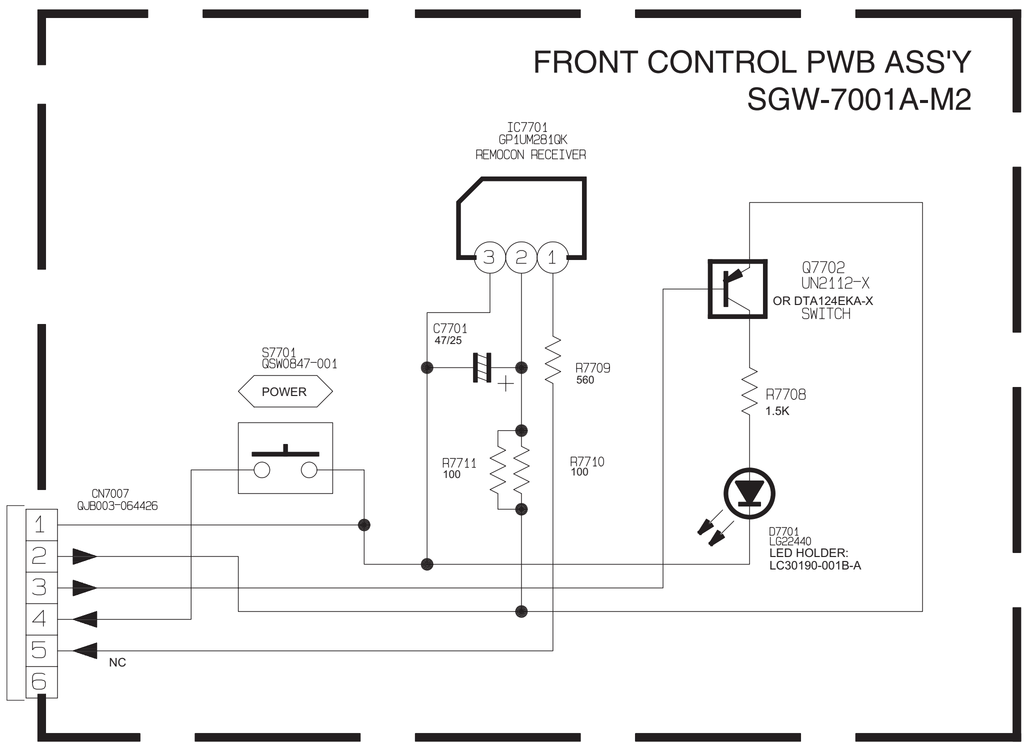
CRT SOCKET PWB ASS'Y

SGW-3001A-M2 : AV-30W475/S

SGW-3002A-M2 : AV-30W475/Y


VIDEO-3
J6401
QNN0591-001
V
L
R
CN6006
QJB003-054610
AV
SELECTOR
PWB
V3
V3_GND
L3
A_GND
R3
Y6001
0
K6401
OPEN
C6401
10/50
C6402
2.2/50
C6403
2.2/50
R6401
75
R6402
220K
R6403
220K
LC6401
QQR1459-001
LC6402
QQR1459-001
LC6403
QQR1459-001
Y6401
OPEN
Y6402
OPEN
Y6403
OPEN
Y6404
OPEN
Y6405
OPEN
Y6406
OPEN
VOL+
VOL-
CH+
CH-
MENU
S6706
QSW0619-003Z
S6705
QSW0619-003Z
S6704
QSW0619-003Z
S6703
QSW0619-003Z
S6702
QSW0619-003Z
CN600B
CHXJIM00033
MAIN PWB
(1/2)
KEY
STB_5V
GND
R6702
1K
R6701
OPEN
R6703
1K
R6704
1.5K
R6705
2.7K
R6706
5.6K
SIDE CONTROL PWB ASS'Y
SGW-6001A-M2

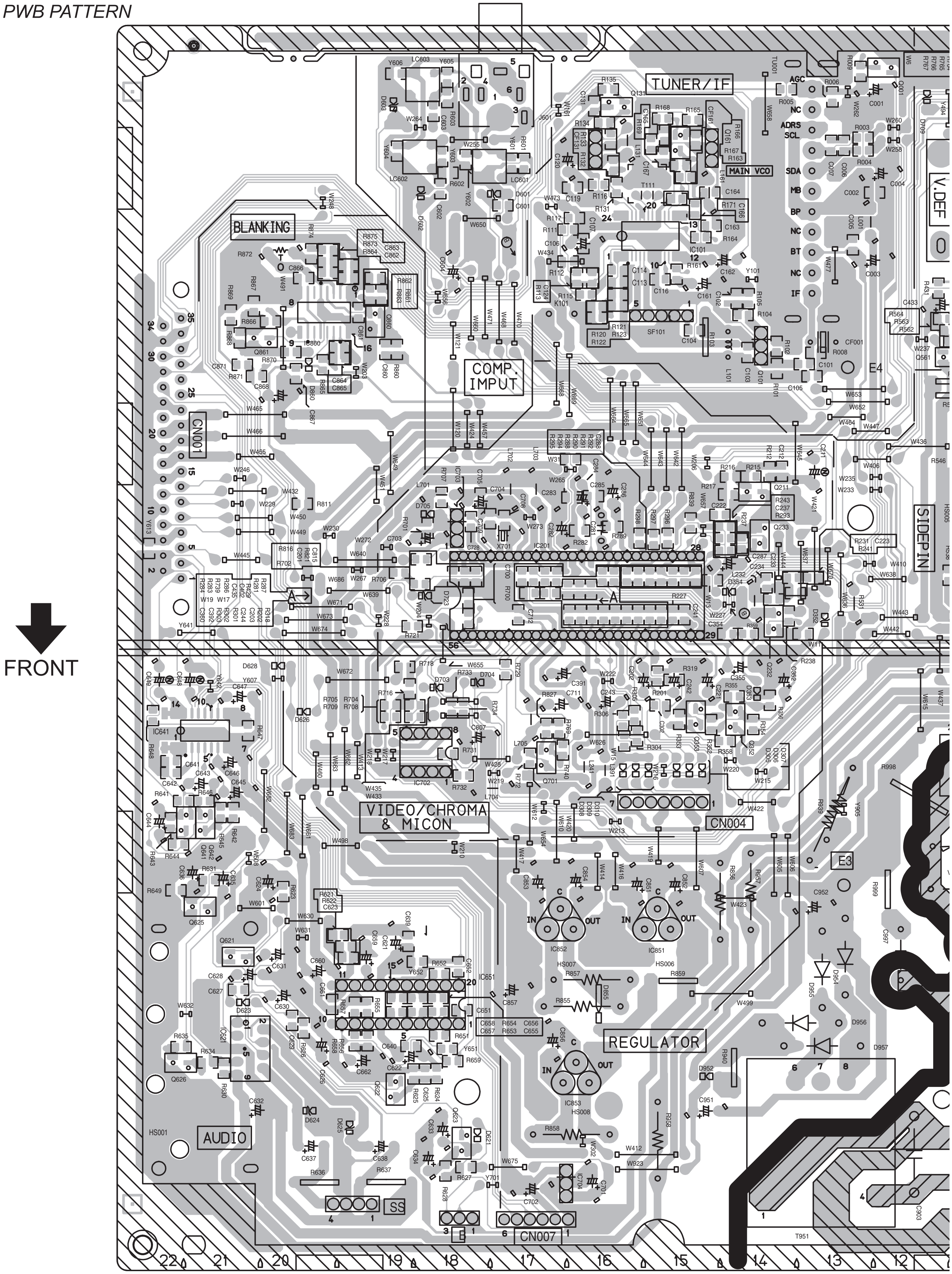
FRONT CONTROL PWB CIRCUIT DIAGRAM



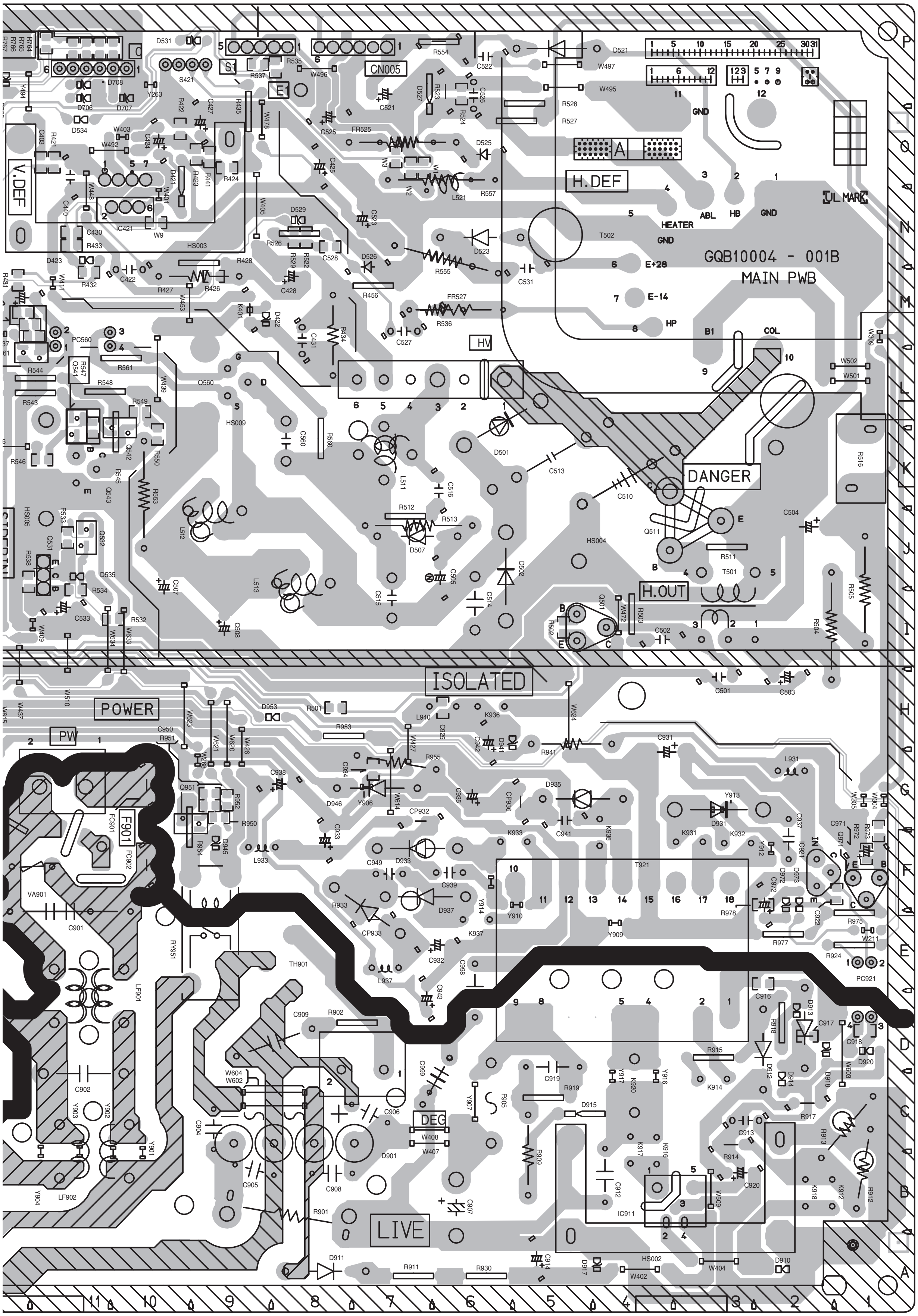
MODE PIN NO.	DC (V)
IC7701	
1	4.9
2	5
3	0
Q7702	
E	5.6
C	5
B	0

PATTERN DIAGRAMS

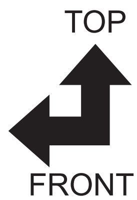
MAIN PWB PATTERN

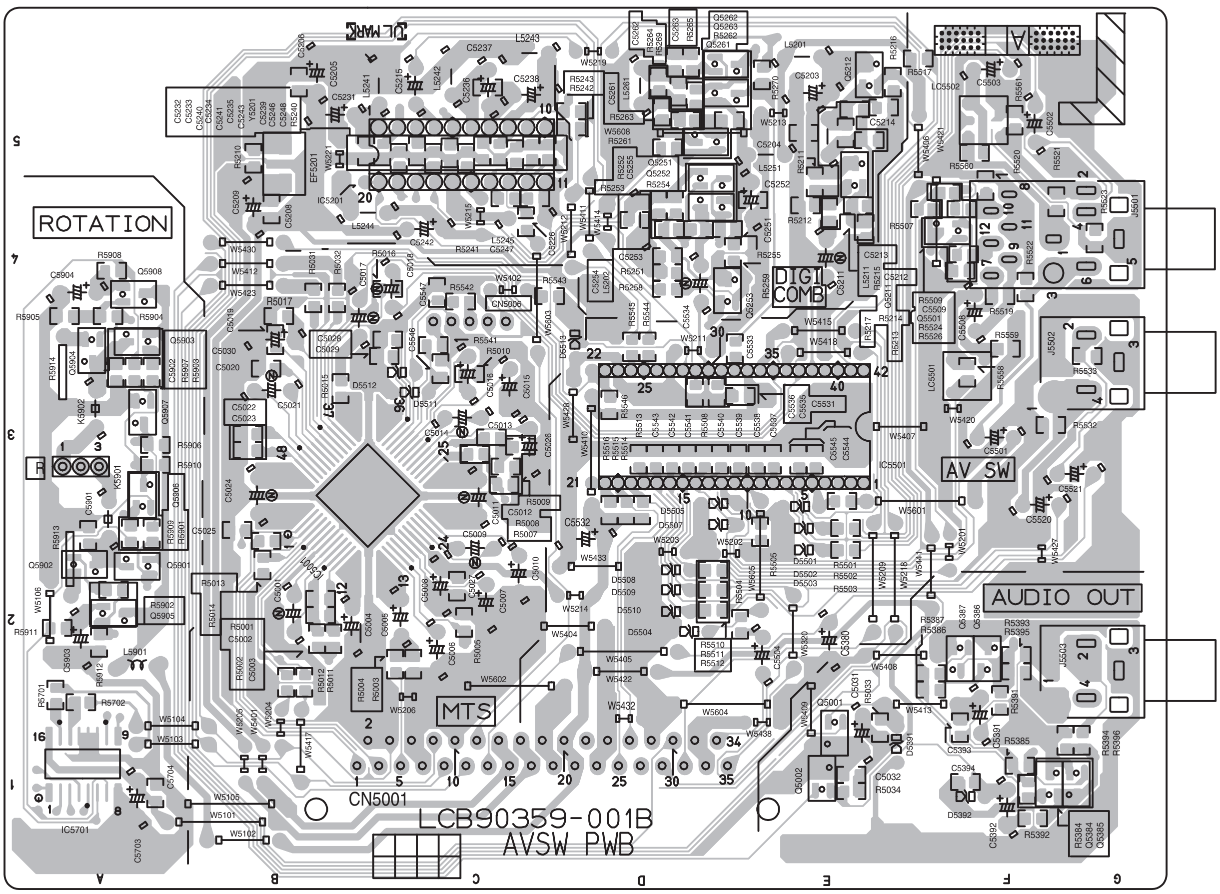


CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S)
AND ROHM'S MFR'S TYPE CP(S).



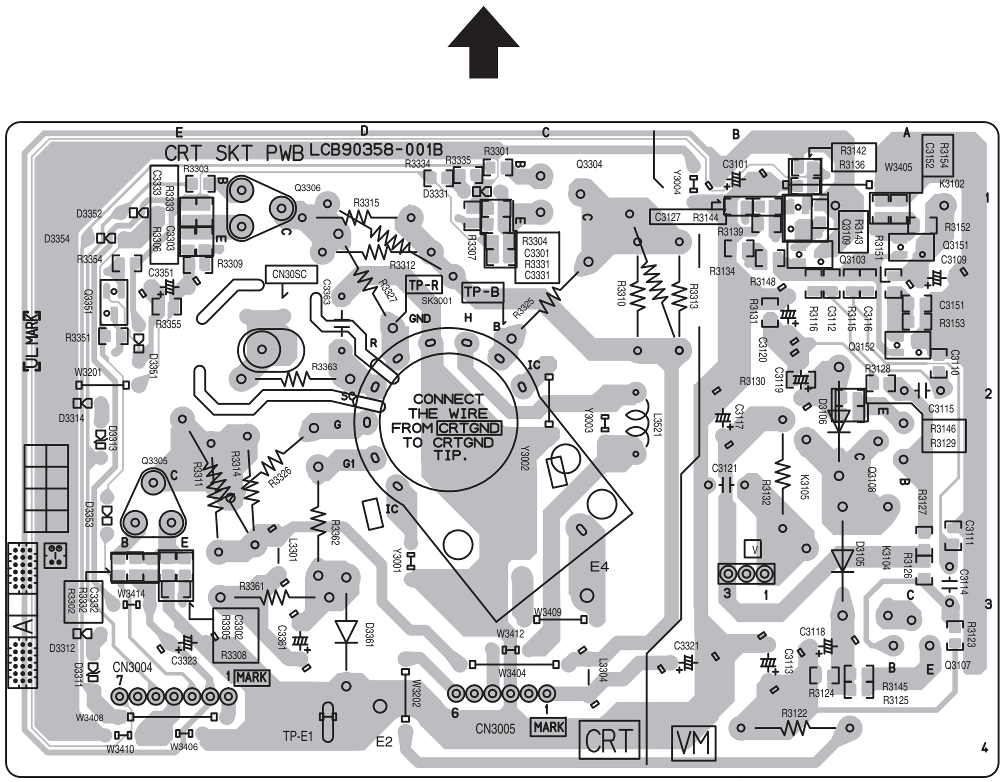
AV SELECTOR PWB PATTERN

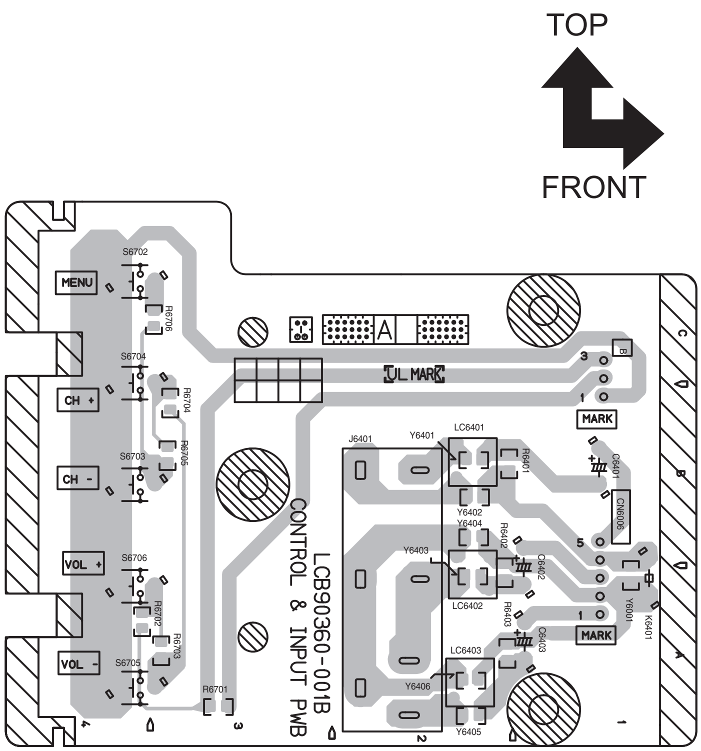




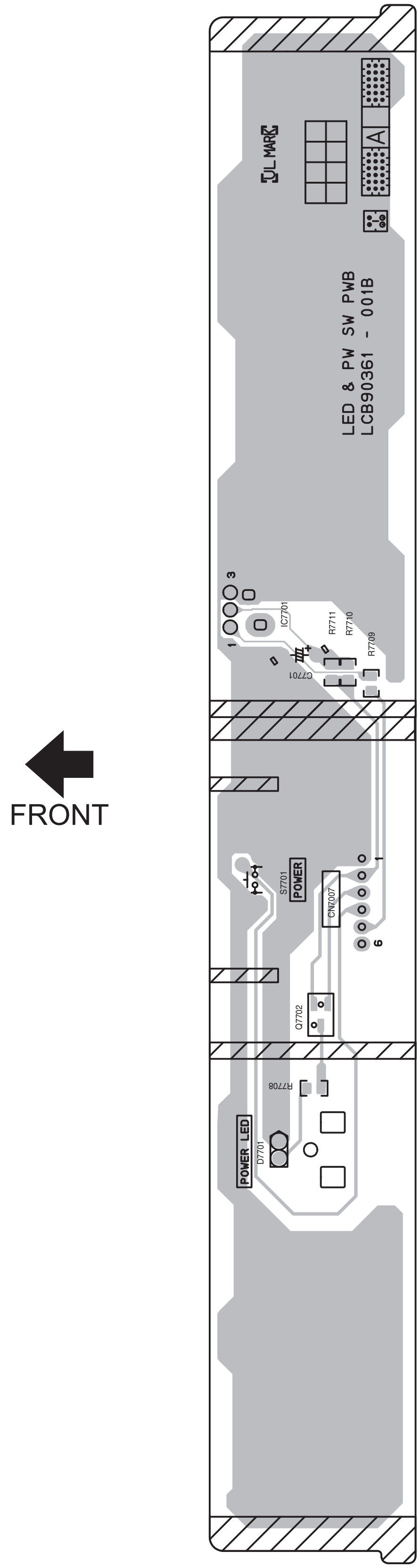
CRT SOCKET PWB PATTERN

TOP




TOP
FRONT
MENU
CH +
CH -
VOL +
VOL -
S6702
S6704
S6703
S6706
S6705
R6706
R6704
R6705
R6702
R6703
R6701
UL MARK
J6401
Y6401
LC6401
R6401
C6401
CN6006
Y6402
Y6404
R6402
Y6403
C6402
LC6402
R6403
C6403
LC6403
Y6406
Y6405
Y6001
K6401
MARK
LCB90360-001B
CONTROL & INPUT PWB

FRONT CONTROL PWB PATTERN



CHANNEL CHART (US)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02		I
			03		
			04		
			05		
			06		
		VH	07		II
			08		
			09		
			10		
			11		
			12		
			13		
×	○	MID	A	14	I
			B	15	
			C	16	II
			D	17	
			E	18	
			F	19	
			G	20	
			H	21	
			I	22	
		SUPER	J	23	
			K	24	
			L	25	
			M	26	
			N	27	
			O	28	
			P	29	
			Q	30	
			R	31	
			S	32	
			T	33	
			U	34	
			V	35	
			W	36	
		HYPER	W+1	37	
			W+2	38	
			W+3	39	
			W+4	40	
			W+5	41	
			W+6	42	
			W+7	43	
			W+8	44	
			W+9	45	
			W+10	46	
			W+11	47	
			W+12	48	IV
			W+13	49	
			W+14	50	
			W+15	51	
			W+16	52	
			W+17	53	
			W+18	54	
			W+19	55	
			W+20	56	
			W+21	57	
			W+22	58	
			W+23	59	
			W+24	60	
			W+25	61	
			W+26	62	
			W+27	63	
			W+28	64	
		ULTRA	W+29	65	
			W+30	66	
			W+31	67	
			W+32	68	
			W+33	69	
			W+34	70	
×	○	ULTRA	W+35	71	IV
			W+36	72	
			W+37	73	
			W+38	74	
			W+39	75	
			W+40	76	
			W+41	77	
			W+42	78	
			W+43	79	
			W+44	80	
			W+45	81	
			W+46	82	
			W+47	83	
			W+48	84	
			W+49	85	
			W+50	86	
			W+51	87	
			W+52	88	
			W+53	89	
			W+54	90	
			W+55	91	
			W+56	92	
			W+57	93	
			W+58	94	
			W+59	100	
			W+60	101	
			W+61	102	
			W+62	103	
			W+63	104	
			W+64	105	
			W+65	106	
			W+66	107	
			W+67	108	
			W+68	109	
			W+69	110	
			W+70	111	
			W+71	112	
			W+72	113	
			W+73	114	
			W+74	115	
			W+75	116	
			W+76	117	
			W+77	118	
			W+78	119	
			W+79	120	
			W+80	121	
			W+81	122	
			W+82	123	
			W+83	124	
			W+84	125	
		SUB MID	A-8	01	I
			A-4	96	
			A-3	97	
			A-2	98	
			A-1	99	
○	×	UHF	14 ~ 69		IV

TOTAL 180CH
- VHF 124CH
- UHF 56CH

NOTE:
TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES.
SPECIAL ADAPTERS MAY BE REQUIRED.

CHANNEL CHART (CA)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02		I
			03		
			04		
			05		
			06		
		VH	07		II
			08		
			09		
			10		
			11		
			12		
			13		
×	○	MID	A	14	
			B	15	
			C	16	
			D	17	
			E	18	
			F	19	
			G	20	
			H	21	
			I	22	
		SUPER	J	23	
			K	24	
			L	25	
			M	26	
			N	27	
			O	28	
			P	29	III
			Q	30	
			R	31	
			S	32	
			T	33	
			U	34	
			V	35	
			W	36	
		HYPER	W+1	37	
			W+2	38	
			W+3	39	
			W+4	40	
			W+5	41	
			W+6	42	
			W+7	43	
			W+8	44	
			W+9	45	
			W+10	46	
			W+11	47	
			W+12	48	
			W+13	49	
			W+14	50	
			W+15	51	
			W+16	52	
			W+17	53	
			W+18	54	
			W+19	55	
			W+20	56	
			W+21	57	
			W+22	58	
			W+23	59	
			W+24	60	
			W+25	61	
			W+26	62	
			W+27	63	
			W+28	64	
		ULTRA	W+29	65	
			W+30	66	IV
			W+31	67	
			W+32	68	
			W+33	69	
			W+34	70	

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
×	○	ULTRA	W+35	71	IV
			W+36	72	
			W+37	73	
			W+38	74	
			W+39	75	
			W+40	76	
			W+41	77	
			W+42	78	
			W+43	79	
			W+44	80	
			W+45	81	
			W+46	82	
			W+47	83	
			W+48	84	
			W+49	85	
			W+50	86	
			W+51	87	
			W+52	88	
			W+53	89	
			W+54	90	
			W+55	91	
			W+56	92	
			W+57	93	
			W+58	94	
			W+59	100	
			W+60	101	
			W+61	102	
			W+62	103	
			W+63	104	
			W+64	105	
			W+65	106	
			W+66	107	
			W+67	108	
			W+68	109	
			W+69	110	
			W+70	111	
			W+71	112	
			W+72	113	
			W+73	114	
			W+74	115	
			W+75	116	
			W+76	117	
			W+77	118	
			W+78	119	
			W+79	120	
			W+80	121	
			W+81	122	
			W+82	123	
			W+83	124	
			W+84	125	
		SUB MID	A-8	01	I
			A-4	96	
			A-3	97	II
			A-2	98	
			A-1	99	
○	×	UHF	14 ~ 69		IV

TOTAL 180CH
- VHF 124CH
- UHF 56CH

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